

Infantry

March-June 1997



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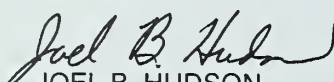
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Commandant's Note

MAJOR GENERAL CARL F. ERNST Chief of Infantry



Mechanized Infantry—Close Combat Fighters of the Heavy Force

“Close with the enemy by means of fire and maneuver to defeat or capture him, or repel his assault by fire, close combat, and counterattack.” This is the mission of all Infantry—Light, Airborne, Air Assault, Ranger, and Mechanized. Whether conducting offensive, defensive, or stability operations, Mechanized Infantry brings the unique capability of conducting close combat in all terrain. Mechanized Infantry units that are not trained to conduct the close gunfight will be incapable of fulfilling their role as an integral part of the combined arms team. Observers have noted that the lack of dismounted Infantry has driven combat training center scenarios to employ mechanized Infantry more like a Cavalry force than the flexible, powerful maneuver element it actually is, and we need to reverse this trend. Mechanized Infantry leaders must ensure that their units are trained and ready to perform all Infantry tasks.

I recognize the tremendous training challenges confronting the commanders, leaders and soldiers of Mechanized Infantry units, and I want to tell you what we at the Infantry School and Center are doing to address them, especially dismounted strength and capability.

The main problems are organization and manning. To achieve decisive results, commanders must have a dismounted, close combat capability. We have recently made several Tables of Organization and Equipment (TO&E) changes which should improve the manning level in Mechanized Infantry Battalions. The most important of these is the addition of a five-man machine gun section, which will increase the platoon's dismount strength. Ideally, each rifle platoon would have three squads of nine men each as in the other types of Infantry. We are working toward this goal. Two other

measures should also relieve some of the pressure on the strength of the rifle squad.

The first of these, adding a third medic in each tracked ambulance, allows evacuation and treatment of casualties without diverting rifle squad members. The second changed some of the Skill Level one support platoon drivers from an 88M—Motor Transport Operator—military occupational specialty (MOS) to that of an 11M—Fighting Vehicle Infantryman. This formally recognizes what many units are already doing to increase the number of dismounts available. While these measures may not completely fix the problem, they can help. And we will continue to search for ways to ensure there are sufficient Infantrymen available to fulfill the requirements. For their part, commanders must be diligent in preventing Infantrymen from being funneled away from duty in rifle squads.

Another challenge is leader training. Some of our younger Mechanized Infantry leaders do not know when or how to employ their Infantry squads and platoons—partly because they have never had sufficient dismounts to employ. To address this problem we have added a field training exercise to the Bradley Leader Course (BLC). After three iterations of BLC, we have found the exercise dramatically increases a Bradley leader's understanding and ability to employ his dismounted rifle platoon. Specifically, lieutenants recognize the need to integrate Bradley supporting fires with the maneuver of their dismounted squads. In the FTX, they develop the skills and techniques necessary for Bradley platoon command. This addition to the institutional training of our junior leaders provides a foundation upon which field commanders can build.

The 29th Infantry Regiment is currently completing pilot Master Gunner course with class 1-98. This will

be a 13-week course—one week longer than the current POI—and will focus on the Operation *Desert Storm* (ODS) improvements to the Bradley Fighting Vehicle. Three of the additional five days of instruction will be directly related to ODS improvements, while the remaining two days will be attrition-related. The Infantry School has examined its Bradley instruction to identify those areas in which students have historically not done well, and is putting additional emphasis on those areas to improve students' learning and retention of the subject matter.

The Basic Noncommissioned Officer Course (BNCOC) has seen some improvements as well. The consolidation of all career management field (CMF) 11 BNCOC instruction at Fort Benning is now complete, except for Soldiers stationed in Alaska and Hawaii, and they will be part of the consolidation by the end of this fiscal year. While the duration of BNCOC remains at seven weeks, the program of instruction (POI) now includes instruction in our Dismounted Battlespace Battle Lab's night fighting experimental facility, the precision lightweight GPS (global positioning system) receiver (PLGR), and the single-channel ground and airborne radio subsystem (SINCGARS). We have also included a program of computer instruction to develop and enhance the skills that these junior leaders will need in today's digitized environment, and the JANUS simulation will supplement BNCOC instruction beginning in January 1998.

Soldiers in CMF 11H will receive training on the Mark 19 grenade machinegun and the .50 caliber M2, M60, and M249 machineguns, while those in CMF 11C will receive training on the Army's 120mm mortar. The POI for 11B and 11M Soldiers will include more training in dismounted operations and MOUT, as well as in demolitions and patrolling.

Resourcing continues to be the major challenge to effective training. There will seldom be enough time, materiel, or facilities available to maintain proficiency using only full-force training. Leaders at every level must use other methods to supplement the full-force exercises. At the Infantry Center, we are committed to providing Mechanized Infantry leaders and soldiers with simulations that facilitate unit training. Several

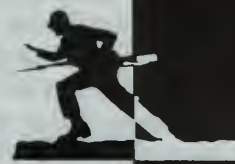
advanced training simulations, such as the Close Combat Tactical Trainer, are under various stages of development and fielding. Our challenge is to integrate the rifle squad into all Mechanized Infantry training simulations. Omitting this key component of the Mechanized force from simulations, especially as we increase our reliance on them, is clearly not an option. In addition to simulations, commanders use other low-resource and time proven tools such as the Tactical Exercises Without Troops (TEWT) to prepare for more resource intensive events. TEWTs are invaluable for exercising command and control techniques and refining SOPs. The Infantry Officer Advanced Course and Bradley Leader's Course use TEWTs to address tactical execution, and emphasize the TEWT as an execution tool, and not just a terrain walk or ground reconnaissance in preparation for other training.

Mechanized Infantry training requires an appropriate balance between crew and squad training. The rifle squad is the foundation for the Infantry force. This is as true in Mechanized Infantry as it is in the other four types. Ultimately, training must produce squads capable of aggressive close combat, crews that can provide effective supporting direct fires, and leaders who can synchronize the two. Field Manual (FM) 23-1, *Bradley Gunnery*, contains a proven methodology for crew training. TC 7-9, *Infantry Live-Fire Training*, provides Infantry leaders a similar strategy for the live fire training of rifle squads. In achieving the balance between crew and squad training, leaders must remember that over 50 percent of Mechanized Infantry tasks require successful performance by rifle squads.

The final part of Mechanized Infantry training is the synchronization of the team. FM 71-1, *The Tank and Mechanized Infantry Company Team*, is due for publication and distribution in the first quarter of fiscal year 1998. This manual, a combined arms effort by the Infantry and Armor Centers, is a giant step in the right direction. Incorporating the latest doctrinal changes and recent lessons learned, this manual contains proven processes, procedures and techniques, and will be an invaluable tool for company and team commanders.

Five types of Infantry. . . One Mission

INFANTRY LETTERS



DOCTRINAL CONFUSION

I recently came across "Designing the Next Infantry Fighting Vehicle," by Gregory A. Pickell, in your July-August 1996 issue (pages 22-32).

I must strongly disagree with this article. The author is correct in stating that the current IFV is a confused vehicle and will not be fixed until its purpose is properly assessed. Unfortunately, he then does not do that but chases after a vehicle design instead.

The problem with current IFVs is doctrinal confusion about the role of infantry on the mechanized battlefield. In World War II, most of the infantry accompanying tanks was truck-mounted. Only U.S. and British forces had significant numbers of mechanized infantry in armored half-tracks within armored divisions. The Germans relied mostly on truck-mounted troops, and the Russians settled for the high-casualty expedient of tank-riding. While the choice was due to industrial capacity, the purpose in all cases was to deliver the infantrymen as close to the objective as possible and then have them dismount and fight on foot. With obvious exceptions in cases of rapid exploitation, motorized, mechanized, and armored infantry fought dismounted. The vehicle—whether truck, armored half-track, or full-tracked tank hull—was just a taxi. Vehicle machineguns were for air defense and suppression of enemy infantry. Enemy tanks were avoided and left to antitank weapons and the supporting artillery, tanks, and tank destroyers.

While infantry fought dismounted, supporting weapons could readily fire from vehicle platforms instead of wasting time dismounting and setting up—hence the proliferation of half-track-mounted mortars, howitzers, and antitank guns (tank destroyers) during

the war. The problem with the current IFV is that it collocates the infantry squad with its own supporting heavy weapon. This is a deliberate doctrinal flaw, not a design flaw. The need is for vehicles that can lift and transport infantry units—meaning squad carriers, weapon carriers, command vehicles, and logistical support vehicles. Ideally, the weapon carriers should be able to fire while mounted and buttoned up, but squads dismount their vehicles to fight. Tanks should be added based on METT-T (mission, enemy, terrain, troops available, and time). This was the successful formula of World War II, and I contend that it is still valid today.

The author's cited examples are consistent. The 1982 Israeli incursion into Lebanon was successful until it bogged down in Beirut street fighting. The Russians' defeats in Chechnya and our problems in Somalia fit the same pattern: Armor doesn't survive well in built-up areas; it's an infantry fight, with armor supporting by fire.

Doctrine aside, I also disagree with the author's technical assumptions and proposals. He claims that western main battle tanks are too heavy while establishing 50 to 55 tons as right for an IFV. This is without basis. Pre-World War II armies recognized that bridge problems begin around the 15-to-25-ton range. Beyond 50 tons, however, you must already rely on solid bridges that generally handle larger loads. The real mobility problem that tanks face is usually not due to weight but to sheer bulk and width.

The proposed redesigned Abrams with rear exit cannot work. Side-mounting the engine does not eliminate the drive connection to the sprockets. Also, its claimed invulnerability is nonsense! Although the Abrams has the best protection of any tank, it is hardly invulnerable. Contrary to the caption,

Figure 6 in the article actually shows an example of sitting-duck infantry vehicles catching flank shots from enemy armor and blocking the return fire of their supporting tanks.

Again, the real problem with designing an infantry vehicle is with defining the role of infantry. Current IFVs are merely oversized light tanks with stowed local security elements. The correct answer is to have a family of vehicles that can carry the infantry's various fire and maneuver elements and protect them from artillery and small-arms fire while they move rapidly to their dismount attack positions.

If the threat ever becomes too great for infantry to survive dismounted, then infantry will be obsolete and should go the way of the horse and leave the battle to armored forces. I don't believe that is now the case, and we should not design equipment as if it were.

CHESTER A. KOJRO
LTC, Armor
U.S. Army Reserve
Rolla, Missouri

THERE'S ONLY ONE DECISION PROCESS

In reference to "The Accelerated Task Force Decision Making Process," by Captain Norbert B. Jocz (INFANTRY, November-December 1996, pages 33-36), I offer the following comments: There is only one decision process in the United States Army; it is found in Field Manual 101-5, Staff Organization and Operations. There is no Accelerated, Combat, or other process. That is the Army doctrine.

Captain Jocz states, "The checklists and graphs of a decision making process will not solve our problems." I could not agree more; however, the

statement implies that the system is flawed. The process is not flawed; it is misunderstood and not studied or practiced to the degree that it should be.

In the brigade command and battle staff training portion of the Battle Command Training Program (BCTP) at Fort Leavenworth, we conduct 14 rotations a year. I state without fear of contradiction that the process is not understood in the National Guard or active duty units that we train when they arrive. This is not because the system is too complex; it is because the system is not practiced. The solution is not to create a new system not supported by our doctrine; the answer is to understand and practice our existing doctrine.

Developing one course of action is not a decision process. Conducting the process in an accelerated manner is possible but only if the base process is understood. In reality, we will not have enough time in almost any situation. The base process as defined in Chapter 5 of FM 101-5 is good and should be followed. No one dies at the combat training centers. We go to those locations to train and learn our craft. If we cannot practice the full decision making process there, where can we practice it? After we understand and use the process, we can innovate.

Wargaming is used to create a visualization of the battle and to recognize branches and sequels. No wargame can predict the outcome of a battle in regard to enemy and friendly losses. Wargaming is a clear example of the application of the art of warfighting, something that must be conducted by personnel who have an understanding of the nature of warfare and weapon effects. The process can be learned but must be practiced frequently to achieve the desired results.

In preparing this letter, I consulted with the commander of the Joint Readiness Training Center and a battalion commander at the National Training Center. Both assured me that the complete process is taught at those locations and is what the rotational units are ex-

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pected to use. I also had an extensive discussion with General (Retired) Richard Cavazos, who has as much experience as anyone with the application of the process in BCTP, and some of his suggestions have been incorporated into this letter.

It is a great thing for Captain Jocz to provide ideas to the community, but we need to understand and use the current system before we attempt to change it.

JACK E. MUNDSTOCK
LTC, Infantry
Maneuver BOS Chief
Operations Group C, BCTP
Fort Leavenworth, Kansas

PSEUDO SCIENCE

I disagree with the assertions contained in the article "Tobacco Use and Its Effects on Readiness," by Command Sergeant Major Sam Spears in your November-December 1996 issue.

Having served in the Army from January 1943 to August 1968, all I can say is that we must have been a poor lot of combat infantrymen—hands shaking so badly we could not shoot straight; unable to see at night, walking around with unhealed wounds; freezing to death because we were unable to counteract the cold weather we faced in Alaska and the Aleutian Islands, during the Bulge, in Italy, at Chosin. Of course, I am talking about all of us poor slobos who smoked!

I don't mind some people using pseudo-science, but I expect more from our senior NCOs. Just imagine, six-minute miles seem to be the standard now. Is this right? And I can even recall the days when airborne troops ran

while wearing combat boots, and did quite well, thank you.

And to lump smoking with such things as "high percentage of body fat, extremely high or low body mass index, low endurance levels, and low muscular endurance levels (as evaluated by performance on sit-ups)." How many of those injuries were caused by smoking? By the other factors? From my reading and talking with light infantrymen, most of the so-called "lower-extremity overuse injuries" were, in reality, caused by questionable training policies.

Finally, over the years, I believe that plain old-fashioned booze causes more damage to the Army than smoking ever has. You know that great image of the warrior: a hard-charging, hard-living, hard-drinking man

Someone once said that converts make the most ardent believers. Apparently, Sergeant Major Spears falls into that category, having been a smoker for 30 years. And I feel certain his present rank and position require him to be a leader on the "Politically Correct" track.

ALBERT N. GARLAND
LTC, Infantry
U.S. Army, Retired
Columbus, Georgia

EDITOR'S NOTE: Sergeant Major Spears' article was in no way intended to denigrate the character or accomplishments of our veterans. Rather, it sought to present our readers with facts based upon empirical data so they could make reasoned decisions concerning the use of tobacco products.

One of the roles of INFANTRY is—and always has been—to offer a forum for the exchange of information relevant to the Infantry branch, and the health of the force is as important an issue now as it was during World War II.

INFANTRY also attempts to foster professional development by means of thought-provoking articles and features, and has evidently succeeded, at least to some extent, with Sergeant Major Spears' piece.

INFANTRY NEWS



EDITOR'S NOTE: *The following is a slightly edited version of an article titled "U.S. Army's Warriors for the New Century," reproduced with permission from Jane's Defence Weekly, 8 January 1997. (Copyright Jane's Information Group 1997.)*

NOW IN ENGINEERING and manufacturing development, the U.S. Army's Land Warrior program is a first-generation modular, integrated fighting system for the dismounted infantry soldier. Land Warrior was one of two major program initiatives to emerge from the Soldier Integrated Protective Ensemble (SIPE) Advanced Technology Demonstration. The second initiative was known as the 21st Century Land Warrior/Generation II system (21 CLW/Gen II) (*Jane's Defence Weekly*, 25 March 1995).

The Army combined the two programs in March 1996. Under the merger, Land Warrior continues to serve as the baseline system for the Army's next century soldier while the existing 21 CLW/Gen II contract activities were redirected to pursue advanced components that would fit into the Land Warrior architecture. The process included a number of interface modifications to ensure that future advanced technology components fit smoothly into the Land Warrior system.

The next step in the Land Warrior program is the design review process. Based on lessons learned during early operational evaluation (EOE), the program will conduct a preliminary design review later this month. At that time the Department of Defense will provide the contractor with the authority to enter a detailed design and order requisite long-lead items.

A critical design review was then conducted in July. This review served

as a "design freeze" for the system configuration that will enter developmental and operational tests. Longer range schedules project contractor production qualification testing (PQT) in April-June next year, government PQT-G between July 1998 and February 1999, and an overlapping platoon-sized initial operational test and evaluation planned for October-December 1998.

The present program schedule calls for the first unit equipped to be a battalion-sized element in the fourth quarter of Fiscal Year 2000.

Although the Army has not established formal acquisition levels, one recent projection prepared for the General Accounting Office indicated that about 34,000 Land Warrior Systems would be required to equip selected soldiers in force package 1 and 2 units.

Current Land Warrior development features government participation by the U.S. Army Soldier Systems Command, Army Materiel Command, Program Manager-Soldier, and Training and Doctrine Command Systems Manager-Soldier.

According to Major Marc Collins from the Office of Program Manager-Soldier, the Land Warrior contractors' proposal included the conduct of "risk reduction" exercises that focused on a test-built test-design method. For example, "Risk Reduction 1," conducted 15-19 April 1996, led to further examination of "human engineering issues" in a follow-on "Risk Reduction 1A" investigation.

"Risk Reduction 2" was later held 16-19 September as a final verification to insure that Land Warrior hardware was ready to enter EOE—a user-supported contractor evaluation of 10 Land Warrior systems covering individual and collective activities up to the platoon level.

"As we built the program we de-

INTEGRATED HELMET ASSEMBLY SUBSYSTEM:

- Lightweight helmet.
- Helmet-mounted monocular display.
- Day/night sensor with integrated flat panel displays.
- Display control interface module.
- Laser detection.
- XM45 chemical/biological mask.
- Ballistic/laser eye protection.

SOFTWARE SUBSYSTEM:

- Two software Computer Software Configuration Items: tactical and mission data support
- Modular for easy integration upgrades.
- Mature software development processes.

COMPUTER/RADIO SUBSYSTEM:

- Computer.
- Soldier radio.
- Squad radio
- Global Positioning System.
- Handheld flat panel display.
- Video capture.
- Compatible with combat identification components.
- Remote computer command.

WEAPON SUBSYSTEM:

- Laser rangefinder.
- Digital compass.
- Wiring harness.
- Video camera.
- Modular weapon system.
- AN/PAS-13 thermal weapon sight.
- Close combat optic.
- AN/PAQ-4C infrared laser aiming light.

PROTECTIVE CLOTHING AND EQUIPMENT:

- Advanced load carrying capability.
- Modular body armor.
- Chemical/biological garment, gloves, and boots.

signed-in an EOE to provide the contractor and the government an opportunity to take the Land Warrior system, put it in soldiers' hands, and gain feedback against seven objectives," Major Collins said.

Those objectives included determination of the feasibility of the software approach, user interface, and application of program features; determination

of user acceptance of load-bearing equipment and validation of select human factors issues; validation of human factors and analysis of operational tasks; identification of operational and support issues; validation of Land Warrior modularity and configurations; identification of training requirements and strategies; and identification or demonstration of new operational techniques, tactics, doctrine, and support concepts.

The Land Warrior team began EOE training on 28 October 1996 with members of Company B, 1st Battalion, 15th Infantry Regiment, 3d Infantry Division (Mechanized). The exercise was a two-phase evaluation. First-phase events focused on individual tasks and training on system performance and the soldier-system interface.

Second-phase events focused on small-unit operations of the nine-man infantry squad as well as the platoon to obtain data on employment concepts and support issues, and to further validate Land Warrior system requirements. Platoon level operations were simulated by equipping a platoon leader, platoon sergeant, squad leaders, and two team leaders.

EOE was completed in late December 1996. Major Collins said, "The EOE prototypes have allowed us to meet our goals in terms of going in and finding out where there were issues we needed to fix." As an example, he identified certain design issues surrounding the comfort of the back frame design. "Certainly when a soldier is trying to crawl on his back or roll over on his back, there are certain things we have to work on to make him more fightable."

Major Collins also identified a need for additional work in such areas as cables and connectors, the battery configuration, load carrying adjustments, and body armor.

"Weapon balance and bulk is another thing we need to work on some more. We're also going to take a look at the night sight in relation to helmet weight and balance.

"Basically, the helmet comes out at roughly the same weight as a PASGT

(personnel armor system for ground troops) helmet with an AN/PVS-7 night vision device mounted to it. But we've still got to work to see if we can improve the center of gravity somewhat."

Major Collins emphasized that "the soldiers very much liked the Land Warrior concept. But the weight of the prototypes and fightability of the prototypes had some problems that must be resolved."

SOLDIER ENHANCEMENT Program (SEP) proposals are submitted each year to the TRADOC System Manager-Soldier (TSM-S). By the end of last year, TSM-S had received 177 separate proposals as SEP new start programs for Fiscal Year 1998.

An SEP candidate must meet the following criteria:

- Be a soldier system item—an item of equipment that is worn, carried, or consumed by the soldier for his or her individual use in a tactical environment.
- Be commercially available (off-the-shelf with little or no modification needed for field military use).
- Satisfy an operational need or a battlefield deficiency.

An item that also makes the soldier more effective or efficient on the battlefield—reduces his load (in either weight or bulk), enhances lethality, survivability, command and control, sustainment, mobility, safety, training, or quality of life—or if soldiers are already spending their own money to buy it, may well be a strong SEP candidate.

During the annual review in March 1997, the executive council approved the following 21 programs as Fiscal Year 1998 new starts, beginning on October of this year:

Machinegun assault bag. Gives machinegunners a minimum of 300 rounds of linked ammunition ready to fire.

12-gauge breaching round. Enables soldiers to breach locks and hinges in an urban environment while minimizing collateral damage.

M203 enhanced fire control system. Increases probability of first-round hit

with the M203 grenade launcher.

Tactical cartridge for long range sniper rifle. Provides significantly improved probability of hit performance at longer ranges.

Accessory shotgun for rifles or carbines. Gives soldiers additional lethality breaching and non-lethal capability.

Lightweight fragmentation hand grenade. Weighs less and is less bulky than the current M67 fragmentation grenade.

Short barrel M249 light machinegun. Improves airborne/air assault jumpability and MOUT maneuverability by shortening the weapon by 10 inches.

Emergency breathing device. Gives helicopter crews a small, compact, lightweight, emergency breathing source with regulated supply of air to allow egress from a submerged helicopter.

Grappling hook, collapsible. Enables soldiers to climb during MOUT assaults, breach wire/mine obstacles, and clear minefields.

Low-profile flotation collar. Reduces bulk and eliminates compatibility problems with the current life preservers (LPU 10 and 21).

Low-profile lightweight voice amplifier. Amplifies voice for wearers of the M40 series, M45 aircrew, and Air Force/Navy MCU-2P series protective masks.

Aviator cable tether. Allows the extraction of downed aircraft crewmen using attack or scout aircraft.

Micro rappel system. Gives soldiers a compact, lightweight, inexpensive rope system for use in entry or escape operations.

Tuff tie. Gives soldiers in MOUT or operations other than war lightweight, disposable restraining devices.

MP combat/law enforcement ensemble. Provides standardized clothing and individual equipment for the military police for use in law enforcement operations.

Protective gloves. Protects soldiers involved in combat and stability and support operations from knives, barbed wire, cut, and slash threats.

Advanced protective eyewear system. Offers better utility and performance than the current sun, wind, and dust goggles.

Improved combat shelter. Provides soldiers with a lightweight, easily assembled, one- or two-man shelter that can also be used as a poncho.

Canteen insert water purifier. Enables soldiers to purify water directly from the canteen as they drink.

Ballistic helmet weight reduction. Incorporates new ballistic composites to reduce the weight of CVC (combat vehicle commander) and PASGT (personnel armor system for ground troops) helmets.

Multipurpose cart (PACK RAT). Gives the individual soldier an off-body load-bearing capability to make him more mobile.

Last year, a total of 24 new-start projects were selected for the FY 1997 program. These included:

- Long-range sniper weapon system.
- M249 feed-tray cover.
- M249 flexmount.
- M4 improved buttstock.
- Weapon flashlight mount.
- Sling, close quarters battle, for the M4 carbine.
- Boresighting device for the PAQ-4 and thermal weapon sight.
- 12-gauge non-lethal point and crowd control munitions.
- Pistol belt extender.
- Improved underlying insulating layers for the extreme cold weather clothing system (ECWCS).
- Alternate-wear hot-weather boot.
- Extreme cold-weather boot.
- Knee and elbow pads.
- On-the-move hydration system.
- Handheld infrared flare/smoke grenade.
- Black light illumination to complement image intensification goggles.
- Ballistic shin guards.
- Ballistic/nonballistic face and body shield.
- Blast protective boots.
- Cooler canteen cup.
- 40mm high-velocity canister cartridge.
- Fuel bar.
- Physical fitness uniform,
- Modular weapon system backup iron sight.

In addition to these new starts, re-

search, development, test, and evaluation on 15 programs was completed during FY 96.

Anyone who has an idea for SEP should understand that it is not an incentive award program. No monetary awards are given for proposals that are adopted for use and result in a cost saving to the Government.

THE RANGER COURSE has continually been evaluated and refined since it began in the 1950s. Recently, a group of Rangers, past and present officers and noncommissioned officers, studied the current program of instruction (POI) and modified it to reflect a more aggressive and physically demanding and modern course. As a result, the course for Fiscal Year 1998 will incorporate a number of training adjustments.

The POI has changed some, but the standards for the Ranger tab are still the same. The Ranger Training Brigade (RTB) will incorporate the most up-to-date weapons and equipment—including the M-4 carbine, the AN/PAQ-4C aiming light, and the precision lightweight GPS receiver (PLGR)—as they become available, to stay current with units in the field. Under the new POI, the course is 61 days in length. Training starts at Fort Benning, Georgia, then moves to Camp Merrill in the North Georgia mountains, and concludes in the swamps of Camp Rudder at Eglin AFB, Florida. Ranger students then conduct a tactical insertion, normally a night airborne operation, back to Fort Benning for graduation.

The students operate at squad level during their Fort Benning training. At Camp Merrill, they start out at section level and work up to platoon level during their training. In Florida, they operate as platoon size elements at a more demanding operational pace. All movement between camps is tactical, which allows for more airborne and heliborne operations, greater training realism, and more experience.

The most significant changes in the

course occur during the Fort Benning phase at the 4th Ranger Training Battalion. To instill aggressiveness, the course places more emphasis on events requiring physical stamina, strength, and courage. Rangers conduct more runs, negotiate the Malvesti Obstacle Course (Worm Pit) more frequently, and road march 16 miles instead of the previous 12 miles. Combatives include hand-to-hand, boxing, and bayonet training. The bayonet training includes rifle PT, pugil sticks, and the bayonet assault course. Greater emphasis is placed on land navigation training, including limited use of the PLGR. The scenario the Ranger students face has also been improved, and the objectives have been fashioned to increase the tactical realism.

The mountain phase of the course has also undergone some significant adjustments. The 10-day field training exercise (FTX) has been split into two FTXs—one four-day and one five-day—with the mountaineering training in between them. A student is now tested on his mountaineering skills in a new event called the Yonah Challenge. Additionally, navigation skills are tested in several infiltration and exfiltration operations.

Some exciting new training has also been added to the swamp phase at Camp Rudder. Ranger students conduct an amphibious assault onto the beaches of Florida in a ship-to-shore mission. To preserve their force and make the best use of limited truck assets, the Rangers also conduct a tactical shuttle march after the tactical insertion back at Fort Benning. This operation, which has several branches and sequels, serves as an excellent training opportunity for the Ranger student.

The prerequisites for the Ranger Course remain the same. Only soldiers in the MOSs shown below are allowed to attend, in accordance with Army policy. The Chief of Infantry is the approval authority for all attendance exceptions.

Anyone who is interested may visit the RTB home page at WWW.ning.Army.mil/RTB/RTBmain.HTM.

PROFESSIONAL FORUM



The M240B Machinegun

CAPTAIN JOHN HODGE

The latest addition to the infantryman's fighting arsenal is a machinegun that will greatly improve the platoon's ability to provide sustained suppressive fires on the enemy. This weapon is the M240B 7.62mm medium machinegun.

While the M60 machinegun has served the force well for more than 36 years, recent field experiences show that it is becoming more and more costly to maintain and is spending more time in maintenance shops than in training areas. Truly, the time has come to find an improved medium machinegun and place the M60 in the machinegun "hall-of-fame" with the M1917 .30 caliber and the Browning automatic rifle.

The search for this improved machinegun goes back to the early 1980s when the M60's "aging" was beginning to show. Coincidentally, the Army was fielding the M249 squad automatic weapon, the replacement for the M16A1 in the automatic rifle role. The M249 had a longer range than the M16A1 and an increased firing rate, which made it comparable in some respects to the M60.

During this decade, the M60 went through several modifications and variations in both the Army and the Marine Corps. The end result was that in 1989, the Chief of Staff of the Army directed that the M249 light machinegun (LMG)—composed of the M249

automatic rifle mounted on the standard M122 tripod with a traverse and elevation mechanism—replace all of the ground-mounted M60s in the Army.

The result of this decision was that the Army would need time to purchase and field approximately 50,000 additional M249s, as well as time to implement changes in training and go-to-war ammunition allocations. In addition, unit training plans would need to be modified to support the new M249 LMGs. This transition would take time,

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and meanwhile further machinegun development was proceeding apace.

While all of these activities were being planned and executed, several things came along that altered this course of action—*Just Cause* in Panama, *Desert Shield/Storm* in Southwest Asia and *Restore Hope* in Somalia. Combat forces conducting tactical operations observed that while the M249 provided good firepower, in some situations, they needed greater range and penetration power. These reports and subsequent field evaluations questioned the earlier decision to replace the M60 with the M249, and led to a comprehensive examination of the missions

and employment of all ground-mounted machineguns. This effort culminated in the identification and development of a medium machinegun for certain combat forces.

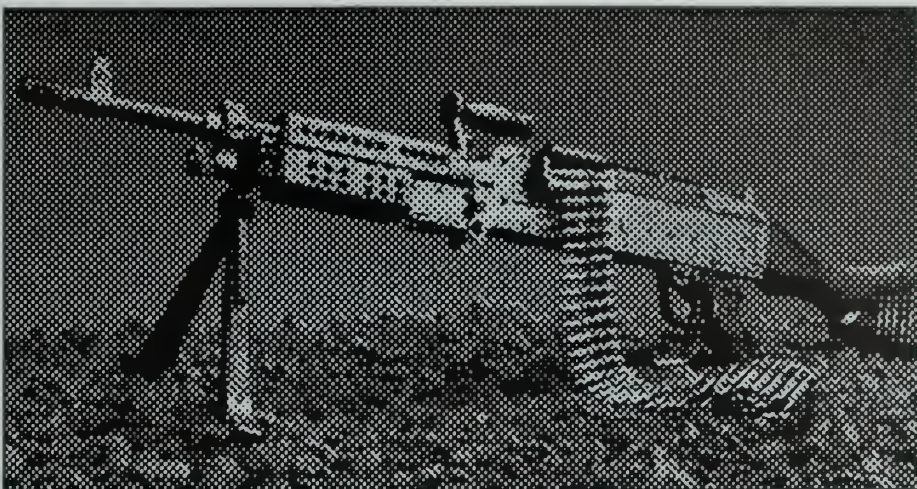
Based on this urgency, the Infantry School received approval in March 1994 and started a program that would provide active infantry units with an upgrade kit for the existing M60 or the M240 (the coaxial machinegun from the Abrams tank and the Bradley fighting vehicle). This program approval was later expanded to include Special Forces Groups, Armor units, and selected Engineer units.

The M60E4 and the M240E4 were the two candidate weapon systems. The results of the "shoot-off" between them, conducted in the summer of 1995, showed that the M240E4 was almost 10 times as reliable as the M60E4. The M240E4 was selected and type-classified as the M240B, despite being almost 5 inches longer and 4.5 pounds heavier than the existing M60. Soldiers who tested both weapons initially were not happy with a bigger weapon, but after firing both, accepted the size and weight as a trade-off for the outstanding reliability and target effects.

The Infantry School and Army Materiel Command are vigorously working to reduce the size and weight of the M240B without compromising its performance. The results of these im-

CHARACTERISTICS

Caliber	7.62mm x 51
Weapon Length	49.3 in.
Gun Weight	27.6 lb.
Maximum Range	3,725 meters
Maximum Effective Range	800 meters (point) 1,800 meters (area)
Maximum Tracer Burnout	900 meters
Rates of Fire:	
Sustained	100 rds/min.
Rapid	200 rds/min.
Cyclic	650-950 rds/min.



provements will be evident in future machinegun fieldings.

When will units get the M240B? Fielding has begun, with active Infantry units being the first to receive it. A collective decision between Headquarters, Department of the Army, and the Infantry School is that the M240B will first be issued to the light, airborne, air assault, and Ranger infantry as well as the Infantry School. This addition will substantially increase the combat power of the units first receiving the new machinegun. Active component mechanized units will get the new weapons during Fiscal Year 1999 in conjunction with the 2x9+5 platoon organization. In the years 1998 through 2003, the M240B will go to reserve component Infantry units, as well as Special Forces battalions, Armor units (mostly Cav-

alry), divisional Engineers who fight with Infantry, and the remaining Training and Doctrine Command schools. At the same time, technical and field manuals are being completed, as well as training videos and CD-ROMs to aid the fielded units in their transition to the M240B.

The results of testing so far have exceeded all expectations. The three guns tested fired 165,000 rounds with only three failed parts, none of which stopped the guns from operating. The failed parts were discovered during routine maintenance and replaced. This reliability far exceeds the stated requirement of 15,000 rounds between failures and is the best result ever recorded for a ground machinegun.

The M240B is an excellent example of the Army's commitment to provide

the best equipment to the soldier, even in the face of budget constraints and diminishing resources. This is an exceptionally reliable weapon units will be able to depend on to accomplish their mission—closing with and destroying the enemy.

If you or your unit have questions, please contact me at the Infantry School: Telephone DSN 835-5013, commercial (706) 545-5013; or E-mail: HODGEJ@BENNING-EMH2.ARMY.MIL.

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The Intent of *Intent*

CAPTAIN JOHN R. SUTHERLAND, III

If you ask for a definition of commander's intent, you will get a wide range of answers. The only thing that is clear is that this critical concept is not well understood and is often misused. Sometimes it is a condensed version of

the entire mission, which is of little help to subordinate leaders.

The whole idea of *intent* can be traced to the evolution of two distinct ways of waging engagements and battles in World War I. All armies wres-

tled with the problem, but the Germans more fully documented the two contested approaches.

The first approach and the most common at the outbreak of the Great War was known as *Befehlstaktik*, in

which the commander literally selected where he was going to attack; he focused his reconnaissance forces there and shoved them through the chosen area. Maneuver forces followed.

The newer technique was called *Auftragstaktik*, which allowed the reconnaissance forces to find the best point for the attack. They searched for

Although our doctrine fully embraces the importance of the commander's intent, many of us still cannot effectively use it.

gaps; the maneuver forces focused on the discovered weak point as the *Schwerpunkt* or decisive point. Then all efforts were made to exploit the weakness. The attack would be made on a narrow axis. A penetration would be made near the *Schwerpunkt*, and the shoulders would be enveloped and expanded in a process known as *Aufrollen*.

Befehlstaktik was built on the conventional wisdom of the day and was widely used throughout the war. *Auftragstaktik* did not develop fully until the German Army was forced to seek new ways of breaking the trenchline stalemate. Reconnaissance-influenced tactics became very successful, but also dictated major changes in the way war was to be fought. Lead elements, called *Stosstruppen*, preceded the attack. These were squad to platoon size, often led by noncommissioned officers or junior officers, working alone and under a decentralized command and control. Their objective was not as well defined since they were seeking gaps instead of advancing on specific locations. To succeed, these troops needed to know exactly what the commander had in mind—that is, his intent. This gave rise to mission-type orders that were more general in nature and driven by purpose rather than task. It can be argued that this is where the importance of the commander's intent first became apparent. The soldiers needed to know what was to be done, not how they were to do it. The *how* was left up to them.

Although our doctrine fully embraces the importance of the commander's intent, many of us still cannot effec-

tively use it. Instead of listening to the commander's intent, many subordinates put their pencils down and patiently wait for the commander to finish so they can get back to focusing on the specifics of the mission. One reason for this may be the sea of definitions found in the various manuals.

The first manual to look at is Field Manual (FM) 100-5, *Operations*, the Army's capstone doctrinal manual, which says that intent describes the desired end state of the mission. The intent is a concise expression of the *purpose* of the operation that is designed to focus subordinates on the desired end state. A well-written intent focuses subordinate leaders on what has to be accomplished to achieve success even when the plan and concept of the operation no longer apply. The intent is *not* a summary of the concept of the operation.

This seems to be clear. What FM 100-5 says is that the commander's intent should tell the subordinate leaders where he wants the battle to end up by clearly defining the purpose of the operation. It goes further to add the desired end state, what the battlefield should look like when the dust settles. The manual also defines the supreme utility of the intent as a guide to conducting operations when the current plan is no longer feasible. In other words, "I can't complete my mission as planned; the task cannot be done, so how can I achieve the purpose in another way?"

Some complain that FM 100-5 does not give a more precise definition of the commander's intent. They would have the manual show us exactly where to put the intent in the operations order, how long it should be, and so on. But the manual was not designed to be a series of dogmatic checklists.

FM 101-5, *Staff Organizations and Operations*, expands on the FM 100-5 definition of commander's intent, and the confusion begins. According to FM 101-5, the commander's intent is his stated vision. Unfortunately, it fails to define "vision" in very concrete terms, leaving the door open to speculation.

This manual goes on to state that the

commander's intent defines the purpose of the operation and the end state with respect to the relationship of the force, the enemy, and the terrain. While the allusion to vision is an addition to FM 100-5's definition, this portion of FM 101-5's definition is in concert with the Army's capstone manual in terms of both purpose and end state. Unfortunately, the definition of the end state tends to add detail and hence length to the commander's expression of his intent.

As if the issue of vision did not cloud the subject enough, FM 101-5 also adds to the definition of intent. It goes on to say that the commander's intent briefly states *how* the force as a whole will attain the desired end state. The commander is expected to choose a single word that best describes the operation: *envelopment, infiltration, mobile defense*, etc. This complicates the intent and extends it beyond the FM 100-5 definition. The statement of *how* leads the commander into the trap of writing and briefing a mini-concept of the operation. This may lead to a verbose narrative that makes intent even less clear to the subordinate leader.

FM 101-5 correctly identifies the commander's intent as the cornerstone of mission tactics and states that it is mandatory for all orders. Intent unquestionably provides the required guidance

A well-written intent focuses subordinate leaders on what has to be accomplished to achieve success even when the plan and concept of the operation no longer apply.

for the employment of initiative, and it is a necessary part of all orders.

Now that we know where the manuals stand on intent, we need to look at the "schoolhouse" interpretation, focusing on the Fort Leavenworth and the Fort Benning solutions.

The Command and General Staff College's premier Special Text (ST 100-9, *Command Estimate*), explores the issues common to planning, preparation, and execution of Army operations. It defines the intent as the commander's

vision of the operation. It describes why the operation is being executed. Intent describes how the commander visualizes achieving the end state with respect to the missions of the force as a whole. The ST goes on to say that the intent also describes how the end state will facilitate future operations (this is in addition to FM 100-5). The ST states that the intent is not to summarize the concept of the operation or to describe sub-unit missions.

Just as FM 101-5 expanded on the FM 100-5 definition, ST 100-9 has likewise expanded on the FM 101-5 definition. As the commander wades through his references, he finds that the requirements for the intent statement steadily grow and become more demanding. It is no wonder confusion reigns as to what the intent is supposed to look like.

The Infantry School addresses intent during the Infantry Officer Advanced Course (IOAC) and the Infantry Pre-Command Course. The School defines *intent* as being equal to *purpose* and expands on this by stating that the commander's intent is the commander's stated vision, which defines the purpose of the operation and defines the end state with respect to the relationship of the force, the enemy, and the terrain. The operations student handout states that the intent may be the same as the purpose of the mission statement at battalion level and below and that if this is the case "it is not necessary to restate it in a separate paragraph."

The reason for the intent is to allow the subordinate to exercise initiative to achieve the purpose. The IOAC student is taught that the purpose of the intent is to allow subordinates to understand the *why* of the mission. When armed with the *why*, they are able to continue when the assigned task becomes untenable, when there is a loss of communications, when the situation changes, or when an opportunity arises in the course of the mission.

The Infantry School spends more time telling what the intent is to accomplish than what goes into it. When the School argues that commander's intent is not always required at battalion and

below, this does not mean the intent can be ignored. It means the intent is woven into the "concept of the operation" paragraph, as defined by the Infantry School.

The IOAC format for the concept of the operation encompasses the essential elements of *intent* as defined by FM 100-5, FM 101-5, and even ST 100-9. The expanded purpose links a unit's mission to that of the higher unit to create a nested concept. This goes a long way toward showing the end state in relation to other friendly forces. The concept describes the *how* of the essential action. It is not a complete restatement of paragraph 3 but a brief overview of the critical events. Finally, the decisive point illustrates the area, time, event, or combination of these, where the friendly force begins to win and the

FM 101-5's definition is in concert with the Army's capstone manual—purpose and end state. Unfortunately, the definition of the end state tends to add detail and hence length to the commander's expression of his intent.

enemy begins to lose. Attached to this is the definition of the end state, which illustrates where the commander wants to be when the mission has been successfully accomplished.

The School position on intent can be summarized as follows: The intent of *intent* is to provide a means through which commanders can concisely communicate the overall purpose of the operation and the related desired end state to subordinate commanders. The subordinates can then apply disciplined initiative in issuing orders or taking action when the planned mission is no longer relevant. The commander's intent is most effective when the enemy situation is different from what was anticipated or when command and control has been significantly degraded. The IOAC spends more time discussing the effects of a well-written intent statement than on laying out a detailed format for the content of the statement.

Because of its role as the Army's

premier doctrinal manual, FM 100-5 has to be considered the foundation for the discussion of intent. This manual and the Infantry School see the intent as including both the purpose and the end state. Although FM 101-5 and ST 100-9 also preach purpose and end state, they add the commander's vision and *how* the unit will accomplish the purpose. Both additions create the potential for excessive intent paragraphs.

A closer look at examples of the two different approaches to the intent paragraph will help explain why confusion exists and what it can lead to.

First, the FM 101-5 version: vision, purpose, and end state, and how to accomplish the mission. The situation is a mechanized infantry task force non-illuminated night attack against a defending motorized rifle company (MRC) at the National Training Center (NTC):

I see this mission as a three-phase operation: recon, attack, and consolidation on the enemy position. All must take place in limited visibility. We must move quickly while maintaining security and command and control. We will use our superior night optics to dominate the enemy. We will seek a weakness on the enemy's eastern flank. The scouts will find it and direct us toward it. At that point, we will create a penetration using our superior firepower and maneuver in concert with punishing artillery. Once we have gained a foothold, we will pour through the breach and envelop the enemy from the east. Our purpose is to gain control of Siberia Ridge and thereby control the approaches from the south and facilitate the passage of the rest of the brigade to continue the attack north. Our desired end state is to find the task force in control of the ridge with sufficient combat power to fend off an MRC-sized counterattack. We will create lanes for the follow-on forces to pass through. They will be guarded and clearly marked. We will accomplish this by conducting an aggressive and stealthy reconnaissance with the scout platoon. Recon in the west will be oriented on assessing the strength of the defense while recon in the east will orient on

finding a penetration point. We will then move out in a diamond formation with Team Delta in the lead, Bravo and Alpha on the wings, and Charlie in trail as the reserve. We will move deliberately, using artillery to destroy selected targets and to draw attention away from our movement. Delta will lead into the breach, followed by Bravo and Alpha. Charlie will secure the breach site. The three assault companies will roll up the enemy flank. This attack relies on speed, firepower, and our superior night vision.

This kind of intent statement is not at all uncommon. Although it sounds pretty good, it is not really very useful to a platoon leader. Since intent is to be understood two levels up and briefed two levels down, the ultimate target of the task force commander's intent is the platoon leader, and this statement is of marginal value to him. It is a synopsis of the scheme of maneuver, wrapped in heroic language, and steeped in doctrinal buzz words. The problem is that it does not indicate what is to be done if the mission, as planned, should become unworkable. It does more to push the subordinates down the path of mission execution than to embolden them to use initiative based on a full understanding of what the commander wants to achieve. The commander in this instance is clear in what he wants to accomplish, but his intent is lost in a sea of words that covers his vision and the way he sees the mission being accomplished. For the intent to have true and lasting impact, it should be short and sweet.

Another example is in order:

The purpose of this operation is to gain control of Siberia Ridge and to dominate the approaches from the south and to the enemy-held north. This will allow the brigade to continue the attack to the north, into the enemy second belt. We will seek a gap on the enemy's eastern flank. We will penetrate there and peel the enemy defense like an orange. Ultimately, I want us to gain and retain control of Siberia ridgeline. We will be able to pass the rest of the brigade through and will be able to suppress the enemy to the north.



Even this intent paragraph is a bit long-winded, but it is considerably more useful. It was actually used at the NTC in 1988 by a unit conducting a night attack. The task force hit the line of departure before the scouts had pinpointed a gap on the MRC flank. Most of the scouts either had been destroyed or had been denied access to their named areas of interest. One lone scout, on foot, found himself in the ideal location—the decisive point. The young sergeant, with his AN/PVS-5 goggles, could see the task force advancing through the darkness. He could also see the entire enemy defense off to his west, perpendicular to his position. No one was covering his location, and no one was east of it. It was the ideal launch point for an envelopment from the east to the west. The scout sergeant knew he was in the right location, but his communications were weak. He switched to the lead company team frequency and called the commander directly, told him about the situation, and guided him with a strobe light. As the vehicles approached, he directed them to the west and toward the enemy flank. The MRC was crushed, and the task force was at almost full strength.

Later, the scout sergeant was called to the after-action review and asked how he identified the critical point. He said that the single most important part of the operations order was the commander's reference to winning by "peeling the orange." Through this vivid and clear analogy, the commander had effectively communicated what he wanted to accomplish.

This example illustrates the power of a simple intent paragraph. Even though

the plan was falling apart, the sergeant knew what to do. Amid the confusion and uncertainty, he seized upon a simple but dominant concept. The company commanders knew how to modify the plan on the basis of the commander's intent, and all were driven by it.

In summary, the inclusion of vision and the way the unit will accomplish the mission adds too much to the intent. The concept of vision is too vague, and the addition of "how to" is too broad. For it to be effective, it must define success in a manner that allows the mission to continue in the face of uncertainty and the fog of war.

Give the purpose—the why. Give the desired end state—what must be accomplished to be successful. Don't be afraid of wandering away from the bland verbiage of FM 101-5-1. Whenever possible, illustrate the problem with a memorable phrase or analogy.

FM 100-5 is on the money with its definition of intent as purpose and end state. In FM 101-5 and ST 100-9, the definition of purpose, *method*, and end state forces the commander into a long-winded dissertation in which the key points of purpose and end state are lost. In the end, a long intent is a wasted intent, if for no other reason than that no one will remember it. Purpose and end state are all that is required for a meaningful and *useful* intent statement.

Captain John R. Sutherland, III, commanded a company in the 24th Infantry Division during Operation Desert Storm and served as an observer-controller at the NTC and as an IOAC small-group instructor at the Infantry School. He is a 1983 ROTC graduate of Northern Arizona University.

Team Leader Course

3d Battalion, 75th Ranger Regiment

COMMAND SERGEANT MAJOR RALPH R. BEAM

Developing leaders, particularly non-commissioned officers, is the highest priority noncombat mission of an effective Army unit. Competent, caring, dedicated, and intelligent NCO leaders will determine its long-term success.

Team leaders are the ones who literally walk the point and lead the way for the soldiers, and they are directly responsible for the performance of most of an infantry battalion's men and firepower. If they fail in any aspect of the job, the battalion may fail in its mission within the brigade and division. Yet these positions of critical responsibility always fall to the most junior and least experienced NCOs. The increased operational tempo, the higher complexity of operations other than war, and the rapid fielding of new, sophisticated equipment work together to demand ever more of our junior NCOs.

The process of team leader development is a matter of experience and observation. Soldiers learn it by watching their own NCOs, good and bad, or they learn it by a crash course given under fire where experience is paid for in blood. In either case, experience is a function of time, place, and fortune—dictating whether a team leader continues to operate with critical gaps in his abilities or emerges with well-rounded knowledge and comprehensive skills.

The Army has made great strides in building the institutional side of the Noncommissioned Officer Development Program (NCODP) through the Primary Leadership Development Course (PLDC). But relying solely on the PLDC to establish the base is not

enough. The first step is a chain of command that understands the importance of a properly resourced leader training program. In the 3d Battalion, 75th Ranger Regiment, our priority leader training program focuses on the team leader. This program is geared to meet the unit's needs while preparing its team leaders to be rounded out by PLDC attendance.

During a command review of our battalion goals, the leaders of the 3d Battalion identified the need for quicker development of its junior NCOs as the top goal for the battalion. The leaders immediately laid out a course of action made up of two components.

The first was to ensure that platoon leaders, platoon sergeants, and squad leaders were actively teaching and

In the 3d Battalion, 75th Ranger Regiment, our priority leader training program focuses on the team leader.

evaluating leader tasks at all levels of METL (mission essential task list) training. This was relatively easy because the battalion's intense training schedule provides an opportunity for all Rangers to develop expertise in critical individual and collective tasks. The junior NCOs were technically and tactically competent soldiers, but were not prepared with the knowledge they needed to perform all of the many tasks demanded of them.

The second component was to develop a unit-specific team leader training course; this part—the task of taking

good soldiers and making them good NCOs—was more difficult and took longer to implement. The truth is that there is a big gap between being a good soldier and being a good NCO. A good soldier knows what to do; a good NCO knows how to teach and lead his troops to do the right thing. The outcome of our course of action had to be training our fire team leaders to teach and lead.

At the end of the command review, the battalion commander charged the battalion command sergeant major (CSM) with the task of building a program that would speed the transition from good soldier to good NCO for the battalion's fire team leaders.

The CSM canvassed the first sergeants and platoon sergeants for topics they thought should be included in the 3d Battalion Team Leader Course. These senior NCOs looked at what they expected their fire team leaders to be able to do, at the level of professional education in most of the prospective students (most would not yet have attended PLDC), and at a realistic number of hours that could be devoted to the course without detracting from other training events. Then they gave the CSM their best estimates of the topics that needed to be covered. The CSM took this list of topics, compared it to the guidelines in Army Regulation 350-17, *Noncommissioned Officer Development Program*, and Training Circular 22-6, *The Army Noncommissioned Officer Guide*, and decided upon the essential subjects the course would cover.

These topics, which were also directly related to unit shortcomings, ad-

dressed the unit's character and culture. The classes are focused on specific team leader tasks. They try to show the team leader how he fits into the various Army systems and the important role he must play in making all of those systems work.

For instance, one of the essential skills of a good NCO is effective counseling—the Ranger's individual after-action review. To be an effective counselor, however, an NCO must know how to apply Field Manual (FM) 22-101, *Leadership Counseling*, and not just how to answer promotion board questions drawn from it. He must be able to practice the skills of listening, watching, responding, and guiding. These skills are demonstrated and practiced during scenario-driven role-playing exercises. The main thrust of the counseling class is to teach a team leader to develop good soldiers and bond strong teams. This skill was judged so critical that it was allotted the course's largest block of time.

Another example of targeting the class to its students is its introduction to training management. Although the instruction touches on the training management cycle from FM 25-101, *Battle Focused Training*, its primary focus is to teach team leaders the relationships among the battalion and company METLs, the platoon critical collective tasks, and the critical individual tasks they are responsible for training. The class shows students how to use the ARTEP mission training plan manuals to identify individual tasks to train and evaluate. It also shows them how they fit into the training management cycle and how they can influence what appears on the weekly training schedule.

The class on physical profiles covers the battalion's profile physical training program and shows the team leader how to read and implement profiles. The aim is to enable team leaders to help their soldiers through rehabilitation without violating their profiles. It shows how to tailor post-profile training to get the fastest, most complete recovery for a soldier.

Many of the third day's classes move out of the classroom to deal with tacti-

cal issues, but they are still focused on training the team leader on how to be a trainer. The class on battle drills does not have to teach them the *React to contact* battle drill—they already know how to do it. The class discusses how to prepare and execute their training sessions with their troops, how to actually do the *crawl, walk, run* train-up in the drill. The other classes cover pre-combat inspections, sector sketches, fire commands, and after-action reviews. With each class, the team leader is given a memory aid, checklist, or diagram for future use.

Finally, the team leaders receive a class on maintenance. This enables them to better supervise their soldiers in operator-level preventive maintenance checks and services, on filling out DA Forms 2404 correctly, and how to follow up on all assigned weapons and equipment.

It would have been simple enough just to assign instruction of these various classes to NCOs, but that would not

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have guaranteed the desired standardization of knowledge and experience from course to course. Instead, senior NCOs prepared lesson plans, examinations, and handouts for the classes. The experience the NCOs have gained as instructors or writers in other assignments resulted in lesson plans with clearly stated terminal learning objectives and tasks, conditions, and standards. Showing the team leaders that even classroom instruction is performance-oriented training helps to set the right example for presenting their own classes.

Since Ranger culture includes strong NCO leadership and subject matter expertise, the CSM, the first sergeants, or the platoon sergeants teach the classes. By having the most senior NCOs in the battalion teaching these subjects, the students receive some impression of the importance of the topics. To ensure smooth, professional presentations, the

instructors practice. Before giving a class the first time, they rehearse the class for the CSM and the first sergeants. Occasionally, an officer subject matter expert presents a class, but student critiques invariably favor NCO presentations, indicating that some subject matter should be left to the NCOs.

Team leaders in the course receive a loose-leaf notebook with handout materials ranging from extracts from Army Regulations, FMs, ARTEPs, battalion and regimental policy letters, standing operating procedures (SOPs), checklists, diagrams, and forms. This material is continually updated from one course to the next. When something is added or updated, all previous graduates of the course also receive the additions. (The team leader course handout book has become an eagerly sought item, with squad leaders and even platoon sergeants casting envious eyes on their team leaders' books.)

The CSM conducts a written critique by the students at the end of each course. The CSM and first sergeants review all critique sheets and make additions or deletions to the course or handouts as required.

The first and second courses were used to train team leaders who were already in position, along with selected specialists identified as future leaders. The third course was opened to leaders in low-density MOSs.

The Team Leader Course is an integral part of the battalion's NCO management program, which ensures that future Ranger NCO leaders will continue to lead the way in the Army. The program consists of a counseling program, a 90-day reception and integration board, a unique promotion board process, and an 18-month performance review board. Further, the CSM uses an NCO management worksheet that lists current duties, projected duties, and projected schooling to prepare for new assignments. The worksheet is a product of the counseling and board process.

The component pieces of the management program complement each other. For example, the sergeant/staff sergeant promotion board draws its

questions and scenarios from unit SOPs, troop-leading procedures, and team leader training courses, as well as Army publications.

NCO responsibility is reinforced through the promotion board process of having the first-line supervisor stand before the board before the candidate arrives. The supervisor briefs the board on the candidate's background and experience and the reason he is being recommended for promotion. The supervisor also presents the candidate's counseling file to the board to support his qualifications for promotion. The cause and effect of training is clear to the board, the sponsoring NCOs, and the candidate. If the candidate is well prepared and excels, both he and his NCO chain of command are rewarded. If the candidate is unprepared, he and his NCO chain of command receive appropriate counseling. Regardless of the outcome, the responsibility of the Ranger NCO's chain of command to train and develop him is clear and the feedback is immediate. Although the board process may take a bit longer, it is a privilege to join the Ranger NCO corps, and this privilege is not taken lightly.

In addition to promotion boards, the battalion conducts a performance review board at 90 days and 18 months in position. Ninety days after an NCO is

assigned to a position, he stands before a board of battalion senior NCOs, which reviews his integration into the battalion and his initial performance in the position. The NCO presents his overall assessment of the element he leads and his goals for the next 13 months based on its observed strengths and weaknesses. These goals are reviewed by the board and placed in his counseling file, where they become the basis for periodic counseling during the next 13 months.

The 18-month performance review board reviews these goals, the element's counseling files, and its training records and determines whether the NCO and element are still on track and performing to standard. The board also discusses the NCO's career path, examining his current position, possible position options, promotions, schools, and personal goals.

The entire NCO development program is an integrated, systematic, and living process. As changes are required, the program is adjusted to meet future needs. The most important element of this program is its source—it is developed and executed by NCOs.

As a result, the process builds trust and confidence in the NCO corps. The combined effects of the components of the leader training program have made it successful beyond initial goals, which

were to bring the NCOs up to the level required in the fast-paced environment of a Ranger battalion. The whole NCO development process has enabled the 3d Battalion to develop NCOs who are not just good Rangers but good NCOs capable of setting and enforcing the standard throughout the Army.

The development process for our team leaders is to identify them, send them through the team leader course, put them into position, evaluate their performance, send them to the promotion board, and then complete the process with the PLDC. The course has allowed the unit to transmit all SOPs and standards with one voice. These new team leaders speak with the same voice and build the team to the same standard we have given them. We owe it to them to provide them with the base of knowledge and the tools to conduct the required tasks to standard. The emphasis of this course is to teach our most critical junior leaders how to think, not what to think. Too many lives depend on their being able to do their job right, the first time.

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Shortstop

Electronic Protection System

KENNETH A. SINES

Throughout modern warfare, the thunder of incoming artillery has caused soldiers to take cover to avoid the lethal effects of flying shrapnel. A new system is being developed that will provide

them with some protection from the type of fuse most lethal for soldiers—the proximity fuse.

The Shortstop Electronic Protection System (SEPS) is a passive, electronic

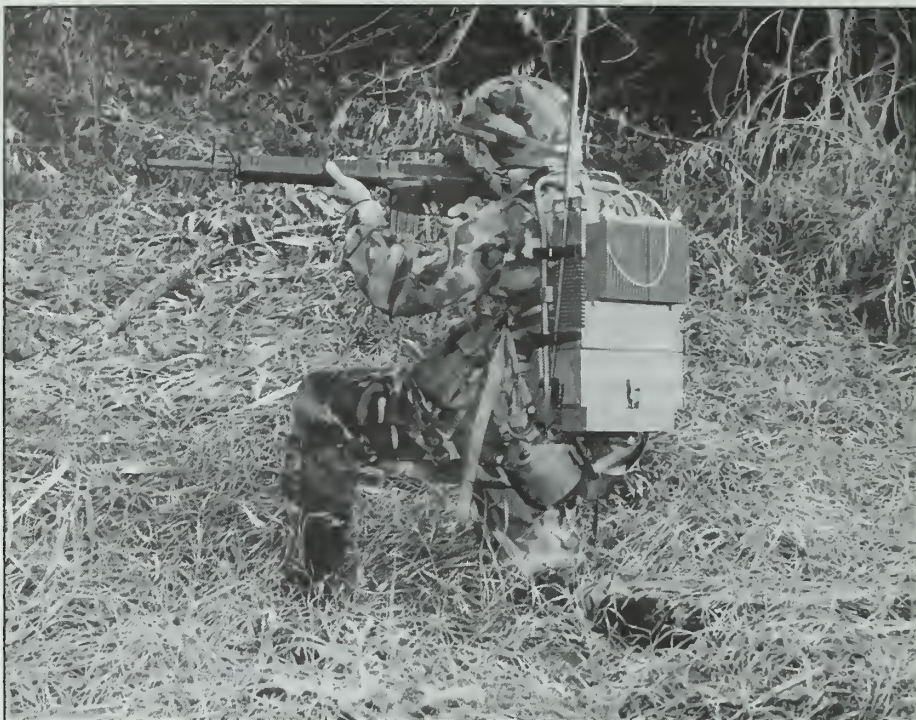
countermeasure that detects the proximity fuses armed on incoming artillery, mortars, or rockets and prematurely detonates the warhead in the air, short of the desired target. The resulting

high-altitude air bursts of the pre-detonated rounds give soldiers early warning of an attack while reducing casualties.

A proximity fuse sends out a radio signal that an altimeter in the fuse uses to determine height above the ground. The fuse detonates at a predetermined distance from the ground every time and achieves maximum effectiveness. A mechanical or an electrical time fuse requires accurate terrain elevation information and a well-trained fire direction crew to calculate the correct time setting. Often, the first round from a fuse of these types detonates too early and is ineffective, or it detonates too late and acts like a point-detonating fuse. Accurate, air-burst, high-explosive rounds have a devastating effect on troops in the open and on soft-skinned targets. The air-burst, high-explosive shell fuse combination is six to ten times more effective than the same high-explosive round using a point-detonating fuse.

Proximity fuses are inexpensive to manufacture and can be used by trained and untrained artillery crews alike. Because of its ease of use, availability, and cost effectiveness in achieving maximum effect on a target, the proximity fuse is a significant concern to soldiers on the ground. The Shortstop system protects the force by keeping the proximity fuse from accomplishing its intended purpose.

The SEPS design is made up of a core receiver-transmitter about the size of a single-channel ground and airborne radio subsystem (SINCGARS). For maximum flexibility of employment, SEPS will be integrated into three variants—manpack, stand-alone, and vehicular. The manpack variant, which will weigh approximately 25 pounds, will be used by light infantry units while stationary and on the move. The stand-alone variant, which will weigh about 50 pounds, can be used with external power to protect stationary, high-priority targets such as command posts, ammunition dumps, motor pools, re-arming and refueling points, and helicopter staging areas. The vehicular variant will be configured for the host



vehicle and powered by the vehicle's electrical system. It will be mounted on unarmored vehicles to improve survivability while in bivouac and on the move and will have an antenna similar to that on the stand-alone variant.

The Shortstop program was initiated in 1990 by the U.S. Central Command (CENTCOM) as a quick-reaction response capability for Operation *Desert Storm*. Intelligence reports at the time indicated that most of Iraqi indirect fire munitions were equipped with radio frequency proximity fuses for air burst to ensure maximum efficiency for their munitions in a desert environment. Thirty of the first-generation Shortstops were fabricated but never shipped due to the short duration of the war. These systems were placed in contingency storage and were recently used in Bosnia to protect the force from potential artillery or mortar attacks.

Proponency was assigned to the U.S. Army Infantry Center, and an operational requirements document was written and approved in June 1994. The program is under the auspices of the Program Executive Officer for Intelligence, Electronic Warfare and Sensors (PEO/IEWS) with the product manager (PM) for Firefinder managing materiel development. The program is now in

engineering and manufacturing development with test hardware being fabricated (three of each variant). In contractor tests at Yuma Proving Ground in March 1997, the stand-alone SEPS successfully defeated M732, M734, and MK14 proximity-fused artillery, mortars, and rockets fired in shots and six-round volleys. The results of these tests are encouraging as we make preparations to conduct further testing. An integrated operational development test is now in progress.

Through the application of common technologies in multiple systems, SEPS has the potential for integrating this capability into aviation weapon systems to pre-detonate proximity-fused surface-to-air or air-to-air missiles. The technology is also planned for ground weapon systems countermeasure systems for additional force protection.

The Shortstop is intended for employment in areas where an opponent can be expected to use proximity-fused munitions. These areas tend to be arid, desert, flat or rolling terrain, high plains, beachheads, rice paddies, snow or ice fields, and similar geographical locations not restricted by vegetation or urban development.

The oval safety zone provided by the Shortstop varies with the power output

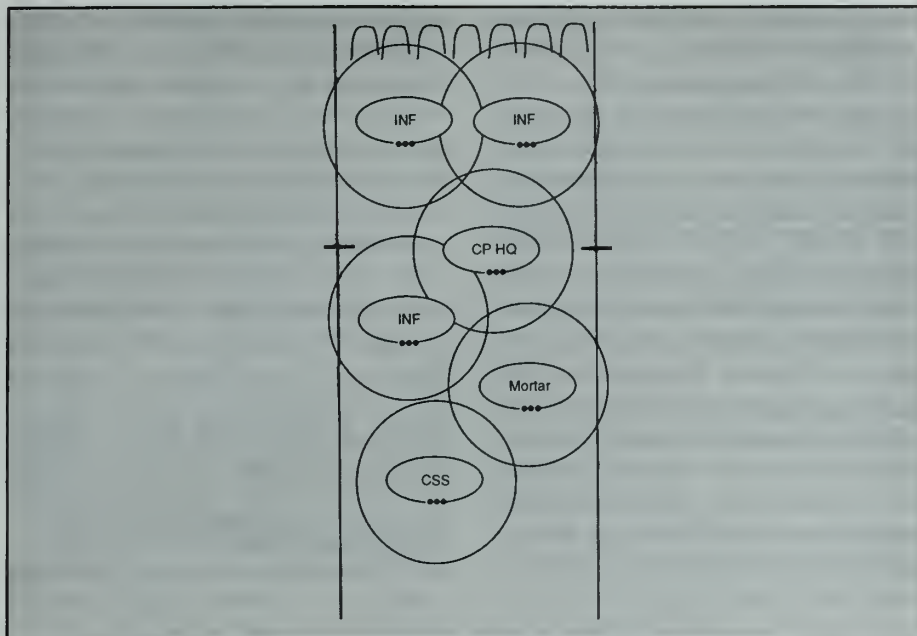


Figure 1

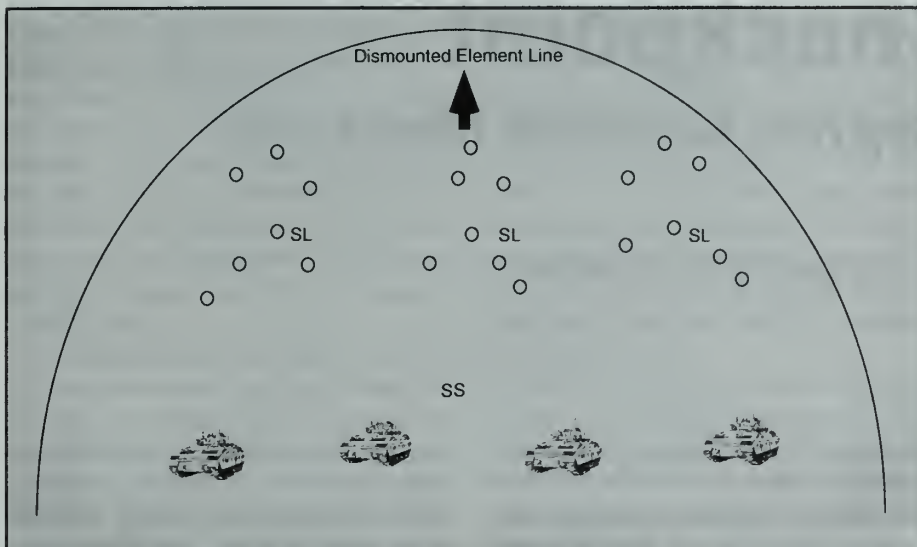


Figure 2

and the antenna design. One manpack Shortstop provides an oval safety zone roughly the size of a football field. The stand-alone and vehicular variants protect a somewhat larger area because of their larger antennas and additional power. For convoys or large fixed facilities, more than one Shortstop is needed for adequate protection.

Shortstops will normally be employed on a basis of one per platoon. Figure 1 shows one in each platoon-sized element of a mechanized unit. The system should be emplaced to take maximum advantage of its protective

electronic footprint. Proper positioning significantly increases the zone of protection, thereby improving the survivability of the force. The Shortstop is not needed in heavily forested areas, jungle with heavy vegetation canopies, or inside bunkers or buildings, because air-burst fuses are not effective in these locations.

With a dismount element of a mechanized infantry platoon, one properly employed Shortstop will protect the platoon. (Figure 2).

In a convoy, the Shortstop is placed behind the lead element or vehicle.

Large convoys should use more than one system to provide overlapping coverage and to accommodate high-trajectory mortar fire protection.

During river-crossing or mine-breaching operations, Shortstop protection is normally provided by the unit responsible for preparing the operation, not by those planning to pass through the crossing point or breach. Units traveling with Shortstop through the crossing point or breach should operate in the receive mode and allow the systems supporting the crossing point or breach to suppress artillery and mortar fires. After passing through the units that have Shortstops, the maneuver unit should switch to the operational mode. Stand-alone Shortstops should be recovered and moved with the maneuvering force to the next crossing point.

Some of Shortstop's greatest benefits are in the support of static operations of combat support and combat service support units. These operations consist of the forward command posts responsible for the reporting, directing, and controlling of artillery and mortar batteries, checkpoints, forward sensors and observation posts, staging and tactical assembly areas, communication sites, forward support teams, and forward arming and refueling points.

Army forces have always participated in support and stability operations. They have protected citizens at the edge of the frontiers of an expanding America; built roads, bridges, and canals; assisted nations abroad; and served our nation in a variety of other missions. The pace of these types of operations has increased in recent years, and they appear to be more and more hostile and dangerous to friendly forces trying to restore order, peace, and tranquility in areas around the world.

Support and stability operations are intrinsic in a deployed unit commander's peacetime theater strategy, an ambassador's country plan, and civil assistance at home. Soldiers serve daily in this capacity. Military police assist in the restoration of civil order; medics provide advice on preventive medicine; field hospitals provide health care to refugees; and mobile training teams

enhance local military expertise in securing their nation's interests.

The Shortstop is ideal as a force protection multiplier from artillery and mortar attack during support and stability operations. The use of radio proximity fuses provides the sought-after psychological effects that give quick visibility to terrorists or paramilitary causes. During such contingencies, the Shortstop provides perimeter and flank security from surprise attacks or harassing indirect fire. The Shortstop is generally compatible with other force protection equipment, yet does not bring with it the controversy and collateral damage of a lethal weapon system.

Part of the requirement for the Short

stop is the need to provide an adequate training device for the system. Efforts will be made to develop a device that will simulate the Shortstop hardware and be capable of interacting with the simulated area weapons effects-radio frequency (SAWE-RF) devices now used at the Army's combat training centers for indirect fire systems. Additional training will be needed on tactical employment, operator maintenance, and optimum location selection for the Shortstop systems within the task force.

History has shown that the Infantry sustains most of its combat casualties from indirect fire. The most serious threat comes in the form of a surprise attack from air burst munitions when

the force is moving, or when it is static in unprotected positions. Although Shortstop is not a complete solution, it will provide a cost-effective means of warning soldiers of an immediate threat, reduce the effects of the threat, and give soldiers time to take cover.

The Infantry Center plans to continue its efforts to develop and field this system to light forces and others in need of the type of protection that Shortstop offers.

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Checkpoint

A Key Graphic Control Measure

CAPTAIN FRED W. JOHNSON

Field Manual 101-5-1, *Staff Organizations and Operations*, defines a checkpoint as "a predetermined point on the ground used as a means of coordinating friendly movement." What the manual does not say is that a checkpoint may often be a leader's key to synchronization. And it does not say that a checkpoint is too seldom used, along with the many other graphic control measures that facilitate command and control. This assertion is based on more than 20 rotations as an observer-controller at the Joint Readiness Training Center (JRTC). Time and again, I saw platoon leaders and company commanders develop courses of action and issue orders without applying adequate graphic control measures to assist command and control.

Although the checkpoint is only one

of the many graphic control measures at a leader's disposal, it may be the most important. In addition to focusing maneuver, it can be used to call for and adjust indirect fire, direct casualty evacuation and resupply, coordinate linkups, and help prevent fratricide. The checkpoint is useful in every op

Although the checkpoint is only one of the many graphic control measures at a leader's disposal, it may be the most important.

eration a unit may conduct, but its importance is best shown in the fluid and changing environment of the low intensity conflict (LIC) phase at the JRTC.

Most operations during this phase are characterized by numerous small-unit patrols, normally executed at pla-

toon or squad level for a variety of squad level for a variety of missions. These missions may include zone or area reconnaissance, ambushes, and security patrols. In some cases, platoons are also tasked to conduct search and attack operations. Unfortunately, units must often conduct these operations with too little time for planning, which leads to an abbreviated decision making process. In such instances, the leader may have only enough time to conduct an initial intelligence preparation of the battlefield (IPB), develop a restated mission, and come up with a very generic course of action (COA). In these situations, a checkpoint can be a leader's most valuable tool for making sure his COA is synchronized.

A security patrol can be used as a model to illustrate the use of check-

points to facilitate command and control. The scenario has a company in a patrol base planning for future operations.

A platoon is tasked to send a squad on a security patrol to locate and destroy opposing force (OPFOR) reconnaissance elements within their capability (three soldiers or less). The squad is given a sector and a time to return. A forward observer (FO) is not available for attachment to the squad, and the only radio the squad has is an AN/PRC 126. (Although this is not the ideal situation, it is quite frequent at the JRTC.)

The squad leader conducts his initial IPB and determines possible OPFOR locations and key terrain in his sector. He then designates the suspected OPFOR locations as objectives and identifies a series of checkpoints along his route. The checkpoints are easily recognizable on the ground, and some are near trails or roads that are accessible by vehicle. Before leaving the platoon location, the squad leader backbriefs the platoon leader and provides him the graphics. The graphics are in turn given to the commander, the 60mm mortar sergeant, and the fire support officer (FSO).

During the patrol, the squad reports its location to the platoon leader by calling in the checkpoints. The squad leader reports any movement he hears or sees in his sector to the platoon leader. Using the checkpoint in the vicinity of the squad leader's location, the platoon leader checks with the commander to see whether any friendly patrols are in that area. If so, a potential fratricide incident is avoided. If not, the squad leader is alerted to possible OPFOR movement. If OPFOR activity is present, then the platoon leader notifies the mortar section sergeant to be ready to fire a mission near the checkpoint.

If the squad makes chance contact with an OPFOR element and sustains a casualty, the squad leader may decide to break contact and notify the platoon

leader to adjust fire on the checkpoint. The squad leader then designates a checkpoint in the vicinity of a trail as a linkup point for casualty evacuation. He then adjusts the indirect fires as the squad transports the casualty to that checkpoint, and the commander directs

In these situations, a checkpoint can be a leader's most valuable tool for making sure his COA is synchronized.

the front line ambulance to it. The squad links up with the ambulance, and the casualty is evacuated.

If the squad moves and determines that the disposition of the OPFOR is a squad at a supply point, the squad leader notifies the platoon leader, who relays the information to the commander. If the supply point is considered a high-payoff target, the commander then has several options. Using the checkpoints developed by the squad leader, he may position fixing forces along avenues of egress and send an element to link up with the squad leader at a checkpoint to facilitate a hasty attack. He can also have the squad leader adjust indirect fire on the supply point using the checkpoint as a reference point.

The squad leader started off this operation at a distinct disadvantage. He had limited planning time and scarce

Checkpoints must be on identifiable terrain so soldiers and other elements can easily recognize them on the ground.

resources (one radio, for example, and no forward observer), but his initiative in planning checkpoints could have resulted in the synchronization of a company level attack. At least, he might have saved the life of one of his soldiers. Checkpoints are very basic in concept but can be vital to a successful operation when planning time is limited. Still, the leader must ensure that he observes several rules when he uses

checkpoints as the sole graphic control measure to synchronize his operation:

- Checkpoints must be on identifiable terrain so soldiers and other elements can easily recognize them on the ground.

- Too many checkpoints on a map may confuse soldiers.

- The graphics must be submitted to the next level of command, at the very least. Any adjacent units conducting patrols in the area should also be given copies of the graphics.

- The company mortars must also have the graphics.

- A few checkpoints must be placed near roads or trails to facilitate medical evacuation by ground. A checkpoint may also be placed near a landing zone to facilitate air evacuation.

- The unit's movement must be reported using the checkpoints. Every checkpoint must be called in so the next higher leader can follow the movement.

One technique is to designate checkpoints for objectives or unit locations. The leader memorizes what the checkpoint represents (tactical operations center location or Objective Red, for example). He can then conduct his mission with a map that has graphics but that will be useless to the OPFOR if he is compromised.

Additional graphics are usually necessary in complex operations such as attacks or in the defense. Experience at the JRTC has shown, however, that many units conduct these types of missions with only the graphics provided by their higher headquarters. Nonetheless, if leaders at all levels follow these simple guidelines, the checkpoint may be just the graphic control measure a unit most needs to synchronize its operations.

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Decision Point Tactics During the Defense

Fighting the Enemy, Not the Plan



CAPTAIN JAMES CRIDER
LIEUTENANT COLONEL PETER J. PALMER

This is the second article in a two-part series on the use of decision point tactics by the opposing force (OPFOR) at the National Training Center (NTC). (See "Decision Point Tactics in the Meeting Battle," *INFANTRY*, January-February 1997, pages 28-35.)

The NTC's move to full-time brigade operations—along with changes to OPFOR doctrine and advances in training systems—has brought about a major change in the way the OPFOR fights. These factors have led to tactics that rely more on maneuver and finesse than on firepower. Decision point tactics evolved as a technique for executing these changes.

As explained in the first article, decision point tactics depend upon four imperatives: battlefield vision, successful reconnaissance and counterreconnaissance operations, well-trained crews and platoons, and effective deception opera-

tions. The following discussion of these imperatives applies to defensive operations of units that have a security zone mission:

Battlefield Vision

The OPFOR commander and his staff must have a shared vision of the battlefield throughout the battle. Besides continual experience in realistic combat-like conditions, the primary means of gaining battlefield vision is through the use of the deliberate decision making process, especially the wargaming portion.

METT-T Analysis. Although a full intelligence preparation of the battlefield is needed for a full appreciation of decision point tactics, an analysis of METT-T (mission, enemy, terrain, troops, and time) can summarize some of the more important considerations for these tactics during the defense.

Since an inaccurate analysis leads to invalid results, the analysis should include several alternatives and options, all of which include the enemy perspective:

- **Mission**—The security zone is force-oriented with tasks to either delay, disrupt, or destroy the attacking enemy forces. The large sector associated with the security zone also implies that the defending force must maneuver to achieve mass against the attacking force. Consequently, maneuver decision points are developed from expected enemy actions.

- **Enemy**—During a security zone mission, the enemy has the initiative, and the size of the sector normally gives him many options, both in the formations he may employ and in the avenues of approach available. Key decision points are triggered on the basis of these two variables. Since the security zone, by design, is a high-risk mission, it is important to identify and wargame all potential enemy courses of action (COAs), not just the top three.

The unit's training level, like its ability to execute battle drills, is another critical factor that must be analyzed. The Blue force (BLUFOR) commander remains the hardest element to analyze, and a complete analysis normally requires several battles. Some considerations of the enemy commander include: his ability to make quick decisions and communicate them to subordinates; his preferred tactics (two abreast; one up, one back); his rate of movement; and his use of combat multipliers. The OPFOR recognizes that enemy actions influence the way we fight, and on the battlefield, the enemy always gets a vote.

For the sample scenario, enemy forces consisted of two task forces with a combined combat potential of 58 M1A1s and 68 M2s (10 of which were Bradley Stinger fighting vehicles), along with 150 dismounts. Reconnaissance assets included 20 scout HMMWVs (high-mobility multipurpose wheeled vehicles) and an unmanned aerial vehicle (UAV). The UAV poses some unique problems. The OPFOR motorized rifle battalion (MRB) could set out counterreconnaissance against the scouts but could actively do nothing to hinder the UAV (a rules-of-engagement shortfall that has since been corrected). Deception, however, might work well against it. The MRB needs to show the enemy what he wants to see. Since this was the first battle of the rotation, little information was available on the brigade commander's fighting preferences. Still, the unit's reputation from previous rotations indicated a unit that could move quickly, fight well, and adequately integrate its combat multipliers. In short, it would be prudent not to accept risk initially, because the enemy had shown the ability to take advantage of opportunities. The analysis also identified seven potential enemy COAs against the initial positions and two against subsequent positions.

- **Terrain**—The commander and staff must completely review the NTC's terrain, especially in terms of time and space, both of which are especially critical for the security zone. The doctrinal depth for an MRB security zone ranges from 20 to 50 kilometers and the width from 5 to 10 kilometers. Normal OPFOR sector size ranges from 20 to 30

kilometers deep and 6 to 20 kilometers wide. The attacking force has the initial advantage because it dictates the initial area of battle. The OPFOR will attempt to visualize these areas and then determine how to make the best use of the terrain to delay, disrupt, or destroy the enemy.

The more significant terrain factors the OPFOR examines during the security zone include the identification of all possible maneuver routes, choke points, intervisibility lines, and key and decisive terrain features that could help delay, disrupt, or destroy an enemy force. The way the enemy will use this same terrain is always considered as well in this analysis.

For the sample scenario, the MRB commander conducted the following terrain analysis (see terrain orientation map in Figure 1): The sector is 20 kilometers at its widest point, and the distance from the forward line of troops to the rear boundary is 29 kilometers. An examination of the sector reveals that the first defensible terrain runs roughly north and south from Brown Pass and Debnam Pass to Hill 899. The terrain to the west is indefensible because another hill mass splits the sector. By establishing initial positions just east of this terrain, the MRB is able to establish fire sacks on the reverse slope and at natural choke points.

The sector chokes down to approximately seven kilometers in the vicinity of the Iron Triangle, Hill 780, and Chod Hill. Major avenues of approach include Brown and Debnam Passes, the Colorado Wash, and the south wall near Hill 899. The approach in the north is flat and fast while the approach south along the Washboard is broken and slow. Key terrain includes the Goat Trail, Brown Pass, Debnam Pass, Colorado Wash, Hill 899, and Hidden Valley. All of the key terrain represents major avenues of approach or areas vital to flank security. Decisive terrain in this case was identified as the Iron Triangle and Hill 780. If these two pieces of terrain were lost, the enemy would be able to place direct fires on the first-echelon defense.

- **Troops**—The OPFOR must consider the capabilities and limitations of its own personnel and of the augmenting units as well. Upgrades to OPFOR and BLUFOR battlefield

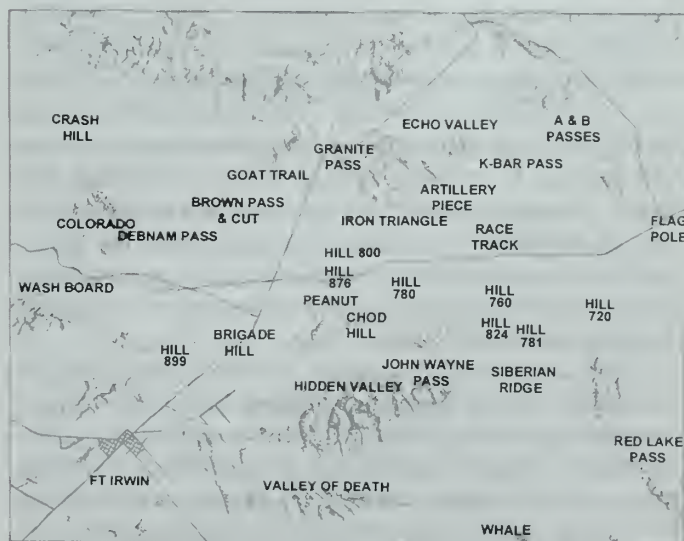


Figure 1. Common NTC terrain feature names.

training systems—MILES II and SAWE (simulated area weapons effect)—are in a state of flux, and units are still trying to determine the limitations and capabilities of these new systems. Future training system upgrades will continue to change this analysis.

For the sample scenario, the MRB consisted of four motorized rifle companies (MRCs) with a combat potential of 13 T-80s and 36 BMP 2s. Also attached were three AT-5s (antitank missile BRDMs), two 2A45s (antitank guns), and 200 infantrymen. Veteran MRC commanders would command the initial positions, and their companies would be doing most of the displacing and maneuvering. The more junior MRC commanders would defend subsequent positions. AT-5s would be critical to the withdrawal because of their long engagement range capabilities. Finally, because this would be the first fight for the OPFOR's augmentee infantrymen, the MRB commander limited their movement requirements and placed them in strong flank positions along critical avenues of approach.

- **Time**—Analyzing different aspects of time is absolutely critical to proper decision point tactics, especially with a large sector and the requirement to withdraw to subsequent positions. Additionally, the requirement to delay, which is time-specific, drives the criteria for and the method of fighting. A commander is forced to balance preserving the force with attempting to gain more time at a particular battle position. Some key considerations include movement times for both enemy and friendly forces on specific routes, movement from hide positions, and the time required to employ special munitions such as smoke, chemical agents, and FASCAM (family of scatterable mines).

For the sample scenario, the mission required the MRB to delay enemy forces for 18 hours. This length of time, coupled with the relatively shallow sector depth and the expected aggressive enemy attack, forced the MRB to plan on a force destruction task and not to assume the enemy would be halted with limited engagements and losses. Until an actual rehearsal could be conducted on the ground, the estimate of withdrawal times from seven minutes to 15 minutes was based on terrain analysis and experience.

Enemy rates of march were estimated to be much faster on an approach march north of the hill mass above the Washboard than south of it because of the rough terrain in the Washboard itself. The MRB would therefore have much less time to react to an attack through Brown or Debnam Pass than to an attack across the Washboard (30 minutes travel time on northern avenues and 60 minutes over the Washboard). Because movement out of hide positions would take five to ten minutes, an early read on the enemy's approach would be necessary.

Finally, because of the amount of time it takes to strike-warn (SW) (notify friendly units) and fire FASCAM and persistent chemicals (30 and 45 minutes, respectively), decision points for each would have to be established. The MRB was given 36 hours to complete all preparations (including the digging of all one-tier and two-tier fighting positions as well as emplacing all obstacles) followed by rehearsals.

Wargaming. Since security zone operations must consider all possible enemy COAs, the wargame for these missions takes a lot more time. Each course of action must be wargamed, and the conditions needed to execute decision point tactics are identified during this process. The belt war-game technique was used for the sample scenario, and two major battle zones were identified.

Rehearsals. More emphasis is placed on rehearsals than on the actual order. Well-conducted rehearsals ensure that everyone understands his role in the plan as well as the timelines and critical decision points for each course of action.

Reconnaissance/Counterreconnaissance

Without good reconnaissance it would be impossible to execute decision point tactics. The regimental reconnaissance element normally "owns" the first decision point, which is the identification of unit formations and avenues of approach. Since subsequent decision points occur throughout the actual execution of the battle, the reconnaissance reporting process is continuous. Because both forces are maneuvering, it is absolutely critical that reconnaissance assets identify the way enemy forces react either to OPFOR maneuver or deception operations. This process will trigger subsequent decision point maneuver options. Counterreconnaissance operations throughout the sector are necessary to hinder the enemy's decision-making process and further enhance deception operations.

Well-Trained Crews and Platoons

Decision point tactics during security zone battles require decentralized execution. To do this, every unit must have crews and platoons that can react on short notice and execute simple battle drills, navigate, and report accurately. The OPFOR's success in executing security zone operations is based primarily on its well-trained crews and platoons.

Effective Deception Operations

Deception is especially critical for security zone battles. The OPFOR uses deception turrets, deception obstacles, and many other techniques to achieve its goals. Effective deception positions can force the enemy to deploy early and commit resources and combat multipliers, which in turn buys time.

The key to successful deception operations is to confirm the BLUFOR S-2s template. If the S-2's reconnaissance identifies templated forces or obstacles, he is more apt to accept the read, even if it is not totally substantiated. Deception electronic warfare (EW) traffic is also developed to reinforce visual deception operations; the use of fires and smoke helps this process.

Example Battle (Security Zone)

Mission: 3d MRB, 32d Guards Motorized Rifle Regiment (MRR) establishes a security zone not later than 19XXX96 to delay enemy forces until 201400XXX96 in order to allow the first echelon MRB to complete the development of the division main defensive belt.

Enemy Courses of Action: The wargame templated seven potential BLUFOR COAs against initial positions (Zone 1) and two BLUFOR COAs against subsequent positions (Zone 2).

Zone 1:

COA 1—Brigade attacks with one task force leading; second task force follows and maneuvers along axis BELL TOWER (Brown Pass).

COA 2—Brigade attacks with one task force leading; second task force follows and maneuvers along axis DALLAS (Debnam Pass).

COA 3—Brigade attacks with one task force leading; second task force follows and maneuvers along axis WACO (Colorado).

COA 4—Brigade attacks with one task force leading; second task force follows and maneuvers along axis ALAMO (south wall Hill 899).

COA 5—Brigade attacks with two task forces abreast and maneuvers along axes BELL TOWER and DALLAS.

COA 6—Brigade attacks with two task forces abreast and maneuvers along axes WACO and ALAMO.

COA 7—Brigade attacks with two task forces abreast and maneuvers along axes BELL TOWER or DALLAS and WACO or ALAMO.

Zone 2:

COA 1—Brigade attacks with one task force leading; second task force follows and maneuvers along north wall (Iron Triangle).

COA 2—Brigade attacks with one task force leading; second task force follows and maneuvers along axis south wall (Chod/Peanut Pass).

The purpose of this operation was to allow the first-echelon regiment to complete the development of the motorized rifle division's (MRD's) main defensive belt. The MRD commander intended to accomplish this by establishing a security zone with two MRCs forward and two back, infantry protecting the flanks, and AT-5s in depth. The two MRCs forward would reduce the force and the two back would delay. Infantry in the north would block, and infantry in the south would disrupt.

Decisive to this operation was the ability of the forward MRCs to reduce three company teams or more from the attacking brigade. Critical to the operation was the ability to mass the combat power of two MRCs on each task force. These two imperatives became the driving force behind each decision the MRB commander made before and during the fight.

The MRB commander was confident that the two MRCs back could effectively delay up to five company teams; he therefore reasoned that the decisive point was to reduce three company teams or more. Accomplishing this task required massing two MRCs on the lead task force. The initial set was designed to respond quickly to any of the seven COAs (Figure 2).

For enemy COAs 1 and 2, the forward MRCs would set an L-shaped fire sack in the north by setting battle positions (BPs) 3-3, 4-3A, and 4-3B. For Enemy COA 4, the forward

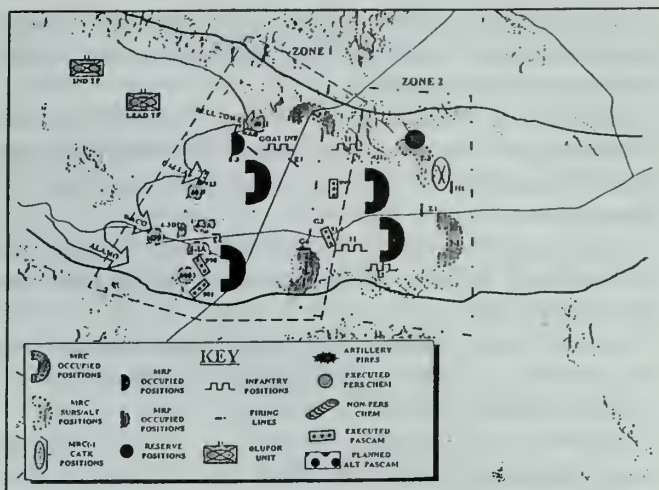


Figure 2. Initial and subsequent positions and special munitions targets.

SECURITY ZONE	DECISION SUPPORT MATRIX (MANEUVER)					
	Zone 1			Zone 2		
	INITIAL SET	PASSES	BATTLE	BATTLE	BATTLE	BATTLE
Friendly CoA		CoA 1 Northern L	CoA 2 Southern L	CoA 3 Withdrawal	CoA 1 South	CoA 2 North
Enemy CoA		1 up/1 back 8m or Dep (CoA 1, 2)	1 up/1 back 800 (CoA 4)	2 Abreast or 1x1 Colorado (CoAs 3, 5, 6, 7)		
Withdrawal Criteria		Less than 4/10 left Dead > 3 Co/Tms If break possible	Less than 4/10 left Dead > 3 Co/Tms If break possible	Must get 2 MRCs on one TF or withdrawal	NA	N/A
1st MRC	3-2 (3/8)	Hide position	Hide position	Hide position	Occupy 3-2 reconstitute the reserve Time: 8min 30 sec	Occupy 3-2
T. Delay P. Allow 4 MRC to prep hrd pos def						
2nd MRC	3-1 (3/8) 1 TDAM	Move to Fight 4-3A (2/8) 4-3B (1/2)	Remain in 3-1 W/D set 6-1	(1/2) 3-1 Delay (2/8) W/D 6-1	Remain 6-1 O/O fight G5 or 7-1	Occupy 7-1 Reconst the Rav or 7-1
penetrate R2	UMZ O/O 4mrc	Time: 6 min	Time: 13 min	Time: 13 min	Time: 10 min	Time: 10 min
3rd MRC	3-3 (3/8) 5-3 (1-2)	Remain W/D 5-3 to 3-3 W/D set 6-3	Move/fight 5-1A W/D set 6-3	(1/2) Delay (2/8) W/D 6-3	Occupy 7-3 Reconst the Rav	Occupy 6-3
T. Delay P. Nothing > 5 Co/Tms penetrate R2	1TDAM & MOO	Time: 11 min	Time: 15 min	Time: 16 min	Time: 16 min	Time: 10 min
4th MRC	1-1 (3/8)	Hide position	Hide position	Hide position	Occupy 1-1 Time: 6 min	Occupy 1-1 Reconst the Rav Time: 7min 30 sec
T. Delay P. Allow 4 MRC to prep hrd pos def						
RESERVE	R1 (1/2) 2TDAM & MSO	R1	R1	R1	O/O Occupy H2 Time: 11min	O/O Occupy G1 Time: 4 min
P. Reinforce						
ATS	E2 G3, G6 1 per	E2 Remain G3 Remain G6 move to E6 Time: 7 min	E2 move to 5-1A G3 Remain G6 Remain Time: 6 min	E2 Remain G3 Remain G6 Remain	E2 to 1-1 G3 to 1-1 G6 to north I3 Time: 20 min	E2 to G1 G3 to north 1-1 G6 to H1 Time: 14 min
T. Destroy P. Allow 3-1, 3-3 to withdrawal						
2A4S	I1 2 systems	I1	I1	I1	One sys I1 One sys H2 Time: 20 min	I1
T. Destroy P. Protect Flank of 3-2						
GOAT INFANTRY	A8 -30	Remain A8 O/O W/D to I1 Time: 15 min	W/D to I1 Time: 20 min	Remain A8	W/D to I1 Time: 20 min	O/O W/D to I1 Time: 20 min
T. Block P. Prot Flk of 3-3, 6-3						
RAMPAGE	I1 (70)	I1	I1	I1	Move 60 Inf to 1-1 Time: 30 min	I1
T. Block P. Prev envel of 3-2						
ANGEL	I2 (30) I3 (70)	I2 I3	I2 I3	I2 I3	I2 I3	Move 60 Inf to G1 Time: 30min
T. Disrupt P. Protect flank of 1-1						

Figure 3. Decision support matrix (maneuver).

MRCs would set the L-shaped fire sack in the south by setting BPs 3-1 and 5-1.

Enemy COAs 3, 5, 6, and 7 presented another challenge. In any abreast option, the forward MRCs would find themselves fighting with one MRC per task force, which was unacceptable. Additionally, with the Colorado Wash splitting the section, both MRCs again could mask two MRCs against one task force on this terrain. Therefore, for Enemy COAs 3, 5, 6, or 7, the forward MRCs would be forced to withdraw to their next positions. The two forward MRCs would withdraw to BP 6-3 in the north and BP 6-1 in the south, respectively. The remainder of the triggers for maneuver and fires are displayed in the decision support matrix (Figure 3).

Initial Unit Set Positions (All COAs): This describes

initial sets and main task and purpose for each major subordinate element. Subsequent COA descriptions only address changes to the initial sets:

1st MRC (2 T80s/8 BMPs): Initial: Set BP 3-2; Task—Delay brigade; Purpose—To allow 4th MRB time to prepare first-echelon defense. Remain in hide positions during the Zone 1 fight.

2d MRC (3/8): Initial: Set BP 3-1; Task—Reduce lead TF; purpose: To allow no more than five company/teams to penetrate PL R2.

3d MRC (3/6): Initial: Set BP 3-3; Task—Reduce lead TF; purpose: to allow no more than five company/teams to penetrate PL R2.

4th MRC (3/8): Initial: Set BP 1-1. Task—Delay brigade; purpose—to give 4th MRB time to prepare first-echelon defense. Remain in hide positions during Zone 1 fight.

Antitank company (ATC)

AT5s: Initial: Sets firing lines E2, G3, G6.

Task—Destroy lead TF forces. Purpose—To allow 3-1 and 3-3 to withdraw.

2A45s: Initial: Set I1. Task—Destroy enemy forces; purpose—to protect flank of BP 3-2.

Reserve (1/2): Initial: Set R1. Task—Reinforce designated BP; purpose: to prevent penetration of BP or assist in withdrawal.

Goat Infantry (30): Initial: Set A9 (Goat Trail). Block Goat Trail to protect flanks of BPs 3-3, 6-3.

Rampage Infantry (70): Initial: Set I1; Task—Block 114 Wadi. Purpose: To prevent envelopment of BP 3-2.

Angel Infantry (100): Initial: Sets I2 (30), I3 (70). Task: Disrupt enemy formations; purpose: to protect flank of BP 1-1.

Fires: Initial SWs—Persistent chemical—target 601 FASCAM #1—target 922 and #2—target 923, nonpersistent #1—vicinity Debnam, #2—Colorado, #3—TBD, SOKOL—on call, close air support (CAS)—on station 0630. (Note that all fires are initially to reduce lead TF and then provide separation of TFs to facilitate withdrawal of forces from their initial positions.)

Zone 1:

COA 1 (Northern "L") (Enemy COAs 1 and 2—BELL TOWER and DALLAS).

1st MRC (2/8): Remain in BP 3-2 hide positions during Zone 1 fight.

2d MRC (3/8): On order (O/O), move, occupy, and fight BPs 4-3A (2/6) and 4-3B (1/2) to destroy at least three company teams from the first task force. O/O withdraw and fight BP 6-1 to continue attrition of lead and second task force. Position a mobile obstacle detachment (MOD) in front of BP 4-3A if enemy comes through Brown Pass (enemy COA 1) or in front of firing line E3 if the enemy comes through Debnam Pass (enemy COA 2).

4th MRC (3/8): Remain in hide positions during Zone 1 fight. Retain minelaying equipment for Zone 2 fight.

ATC

AT5s: Remain and fight E2 and G3, O/O G6 moves and

fight from E6.

2A45s: Remain and fight I1.

Reserve (1/2): Remain in initial set.

Goat Infantry (30): Remain and fight A9. O/O withdrawal to I1.

Rampage Infantry (70): Remain and fight I1.

Angel Infantry (100): Remain and fight I2 and I3.

Fires: Fires COAs 1 and 2)

- Fires COA 1 (enemy COA 1—BELL TOWER): Fire persistent chemical target 601; shoot FASCAM #1, target 922 on second company/team, lead TF. SW and O/O shoot FASCAM #2, target 999. SW and O/O shoot nonpersistent chemical on lead TF in Brown Pass. Fire second nonpersistent chemical on second TF to facilitate withdrawal. O/O position SOKOL vicinity Old Harry/Hill 1141 to facilitate withdrawal. O/O CAS attacks to reduce trail teams of lead TF west of Brown Pass. Intelligence and electronic warfare (IEW) jams artillery and command and control nets.

- Fires COA 2 (enemy COA 2—DALLAS): SW and O/O fire persistent chemical target 602; restrikewarn (RSW) and shoot FASCAM 1, target 923 between TFs. O/O shoot FASCAM 2, target 923 on second company/team, lead TF. O/O shoot nonpersistent chemical on lead TF in Debnam. Fire second nonpersistent chemical on second TF to facilitate withdrawal. O/O position SOKOL to backstop Hill 910 to facilitate withdrawal. O/O CAS attacks to reduce trail teams of lead TF west of Debnam Pass. IEW jams artillery and command and control nets.

Decision Point Conditions to Execute COA 1 and Withdrawal Criteria:

- BLUFOR COA 1 or 2.

- Withdrawal if three or more BLUFOR company teams are destroyed, less than a 4/10 OPFOR remains combat effective, and break in contact is possible.

COA 2 (Southern "L") (Enemy COA 4—ALAMO)

1st MRC (2/8): Remain in BP 3-2 hide positions during Zone 1 fight.

2d MRC (3/8): Remain and fight BP 3-1 O/O withdraw and fight BP 6-1 to continue attrition of lead and second task force.

3d MRC (3/6): Move, occupy, and fight BP 5-1A. O/O withdraw and fight BP 7-3. Emplace MOD in front of BP 5-1A if enemy comes along south wall (Enemy COA 6).

4th MRC (3/8): Remain in hide positions during Zone 1 fight. Hold UMZ for zone 2 fight.

ATC

AT5s: Remain and fight G6 and G3, O/O E2 moves and fights from 5-1A.

2A45s: Remain and fight I1.

Reserve (1/2): Remain in initial set.

Goat Infantry (30): O/O withdrawal to I1.

Rampage Infantry (70): Remain and fight I1.

Angel Infantry (100): Remain and fight I2 and I3.

Fires. Fires COA 6 (Enemy COA 6—ALAMO): SW and O/O shoot persistent chemical target 600; SW and O/O shoot FASCAM #1, target 901 on second company/team, lead TF. SW and O/O shoot FASCAM #2, target 998. SW and O/O

shoot nonpersistent chemical on lead TF vicinity 899 (ALAMO). SW and O/O fire second nonpersistent chemical on second TF vicinity ALAMO to facilitate withdrawal. O/O position SOKOL vicinity Hill 899 to facilitate withdrawal. O/O CAS attacks to reduce trail teams of lead TF west of Hill 899. IEW jams artillery and command and control (C2) nets.

Decision Point Conditions to Execute COA #2 and Withdrawal Criteria:

- BLUFOR COA 4.
- Withdrawal if three or more BLUFOR company/teams are destroyed, less than a 4/10 OPFOR remains combat effective and break in contact is possible.

COA #3 (Withdraw) (Enemy COAs 3, 5, 6, 7—two TFs abreast, both in the Colorado Wash.

1st MRC (2/8): Remain in BP 3-2 hide positions during Zone 1 fight.

2d MRC (3/8): O/O delay with 1 motorized rifle platoon (MRP) (1/2) from BP 3-1, remainder (2/6) withdraws and fights from BP 6-1.

3d MRC (3/6): O/O delay with 1 MRP from BP 5-3, remainder (2/6) withdraws and fights from 6-3. Emplace MOD along western end of BP 6-3.

4th MRC (3/8): Remain in hide positions during Zone 1 fight. Hold UMZ for zone 2 fight.

ATC

AT5s: Remain and fight E2, G6, and G3, and cover withdrawal of lead MRCs.

2A45s: Remain and fight I1.

Reserve (1/2): Remain in initial set.

Goat Infantry (30): Remain and fight A9. O/O withdrawal to I1.

Rampage Infantry (70): Remain and fight I1.

Angel Infantry (100) I2 and I3.

Fires:

- Fires COA 3 (Enemy COA 3—WACO) SW and O/O fire persistent chemical target 699; SW and shoot FASCAM #1, target 999. SW and O/O shoot FASCAM #2, target 914. O/O shoot nonpersistent chemical on lead TF in WACO. RSW and fire second nonpersistent chemical on 2d TF. SOKOL held for Zone 2 fight. O/O CAS attacks to reduce trail teams of lead TF west in WACO. IEW jams artillery and C2 nets.

- Fires COA 5 (Enemy COA 3—BELL TOWER/DALLAS): Fire persistent chemical target 601; shoot FASCAM #1, target 922 on second company/team, lead TF. O/O shoot FASCAM #2, target 923. O/O shoot nonpersistent chemical on lead TF in Debnam Pass. RSW and fire second nonpersistent chemical on second TF in Debnam. O/O position SOKOL vicinity Old Harry/Hill 1141 to facilitate withdrawal. O/O CAS attacks to reduce trail teams of lead TF west of Debnam and Brown passes. IEW jams artillery and C2 nets.

- Fires COA 6 (Enemy COA 6—WACO/ALAMO) SW and O/O fire persistent chemical target 600; SW and shoot FASCAM #1, target 999. SW and O/O shoot FASCAM #2, target 914. O/O shoot nonpersistent chemical on lead TF in

WACO. SW and fire second nonpersistent chemical on second TF on ALAMO. O/O position SOKOL vicinity Hill 899 to facilitate withdrawal. O/O CAS attacks to reduce or delay TFs in WACO and ALAMO. IEW jams artillery and C2 nets.

- Fires COA 7 (Enemy COA 7—WACO/DALLAS) Hold 601 or SW and O/O fire persistent chemical target 699; SW FASCAM #1, target 996. O/O shoot nonpersistent chemical on lead TF in WACO. O/O second nonpersistent chemical on second TF in DALLAS or RSW on TF in WACO. O/O position SOKOL vicinity Hill 141 to facilitate withdrawal. O/O CAS attacks to reduce trail teams of TFs in WACO and DALLAS. IEW jams artillery and C2 nets.

Decision point conditions to execute COA #3 withdrawal:

- BLUFOR COAs 3, 5, 6, 7—Two task forces abreast.
- Withdraw if situation does not allow the massing of two MRCs against one task force.

Zone 2:

COA #1 (South-Chod/Peanut Pass)

1st MRC (2/8): Occupy and fight BP 3-2, reconstitute reserve (1/2).

2d MRC (3/8): Remaining forces occupy and fight BP 6-1. O/O fight G5 or BP 7-1.

3d MRC (3/6): Remaining forces occupy and fight BP 7-3. B/P to reconstitute reserve (1/2).

4th MRC (3/8): O/O occupy and fight BP 1-1. O/O emplace UMZ.

ATC

AT5s: Move from E2 and G3 to BP 1-1, G6 to north of I3.

2A45s: One system remains and fights I1, O/O move one system to H2.

Reserve (1/2): O/O occupy and fight H2.

Goat Infantry (30): Withdraw to I1.

Rampage Infantry (70): Move 60 Infantry to BP 1-1, remaining forces fight I1.

Angel Infantry (100): Remain and fight I2 and I3.

Fires: If available, O/O shoot FASCAM #1, target 914. If available, SW and O/O shoot FASCAM #2, target 999. If available, SW and O/O shoot third nonpersistent chemical west of Peanut/Chod Gap. O/O position SOKOL vicinity Chod Hill. If available O/O CAS attacks to reduce trail teams west of Peanut/Chod Gap. IEW continue to jam artillery and C2 nets.

Decision point conditions to execute COA 1:

- BLUFOR COA south toward Chod/Peanut Gap.

COA 2 (North-Iron Triangle):

1st MRC (2/8): Occupy and fight BP 3-2.

2d MRC (3/8): Remaining forces withdraw to and fight BP 7-1.

3d MRC (3/6): Remaining forces withdraw to and fight BP 6-3. O/O occupy and fight BP 7-3. B/P to reconstitute reserve (1/2).

4th MRC (3/8): Occupy and fight BP 1-1; reconstitute reserve (1/2).

ATC

AT5s: E2 moves and fights G1, G3 moves and fights

SECURITY ZONE		DECISION	SUPPORT	MATRIX	(FIRES)		
F-Fire CoA	INI SW	CoA 1	CoA 2	CoA 3	CoA 4	CoA 5	CoA 6
Enemy CoA		1 up/back Brown pass	1 up/back Debnam	1 up/back Colorado	1 up/back 699	2 Abreast Brown/Deb	2 Abreast Colorado/699
Route		Bell Tower	Delias	Waco	Alamo	BT/Dallas	Waco/Dallas
Pers Chem	601	shoot 601	RSW 602 Time: 45 min	SW 699 Time: 45 min	SW 600 Time: 45 min	shoot 601	SW 600 Time: 45 min
FASCAM #1	922	shoot 922	SW 923 Time: 45 min	SW 999 Time: 45 min	SW 901 Time: 45 min	shoot 922	SW 999 Time: 45 min
FASCAM #2	923	SW 999 Time: 45 min	shoot 923 Time: 45 min	SW 914 Time: 45 min	SW 998 Time: 45 min	shoot 923	SW 914 Time: 45 min
NONPER CHEM 1	Deb Pass	SW Brown Time: 30 min	shoot Debnam	shoot Colo	SW Alamo	shoot Debnam	shoot Colo
NONPER CHEM 2	Colo Wadi	SW Brown Time: 30 min	Hold Colo	RSW Colo	SW Alamo	RSW Debnam	RSW Colo
NONPER CHEM 3	no eye avail	SW Brown Time: 30 min	RSW Debnam	RSW Colo	SW Alamo	RSW Debnam	RSW Colo
SOKOL	TOC 1141	Old Harry	Backstop	3 Sisters	699	Old Harry	Hold for zone 2 1141
CAS	IP 6630	Brown pass	Debnam	Colorado	699	Deb/Brown	Colorado/699
IEW		Arty/C2	Arty/C2	Arty/C2	Arty/C2	Arty/C2	Arty/C2
KEY							
SW-Strikewarn RSW- Re-strikewarn Colo-Colorado Deb-Debnam							

Figure 4. Decision support matrix (fires).

north of BP 1-1, G6 moves and fights H1.

2A45s: Remain and fight I1.

Reserve (1/2): O/O occupy and fight G1.

Goat Infantry (30): O/O withdraw to I1.

Rampage Infantry (70): Remain and fight I1.

Angel Infantry (100): Move 60 infantry to G1, remaining infantry fights I2 and I3.

Fires: If available, O/O shoot FASCAM #1, target 999. If available, RSW and O/O shoot FASCAM #2, target 999. If available, SW and O/O shoot third nonpersistent chemical west of Hill 876. O/O position SOKOL vicinity Iron Triangle. If available O/O CAS attacks to reduce trail teams west of Hill 76. IEW continues to jam artillery and C2 nets.

Decision point conditions to execute COA 2:

- BLUFOR Co A north toward Iron Triangle.

These COAs were converted to a decision support matrix to simplify execution decisions.

Special Munitions Decisions

Although special munitions play a significant role in security zone operations, they are limited assets and therefore require decision points. The MRB was allocated one persistent target, six lines of nonpersistent, and two FASCAM minefields. The employment of these assets is time sensitive and requires between 30 and 45 minutes to restrikewarn on a new target. Units were strikewarned on the initial targets to cover almost all of the potential enemy COAs. The purpose was to contribute to the direct firefight or delay enemy forces and facilitate MRC maneuvers. The initial persistent chemical strikewarn target was 601 (Brown Pass), FASCAM targets 922 (Brown Pass) and 923 (Debnam Pass), and nonpersistent targets in Debnam Pass and Colorado Wash. Artillery systems were not available initially to strikewarn additional nonpersistent targets.

If the brigade chose to attack abreast, either all special munitions would be fired at once to facilitate a break in contact or the regiment would shoot a combination that would break the enemy's momentum and allow the MRB to set the conditions for the decisive point. FASCAM 923 was critical because Brown Pass was the fastest enemy avenue of ap-

proach. The FASCAM could buy time to set the L-shaped engagement area or to fire persistent chemical 601. In both cases, it would help separate the lead TF by shooting the chemical between company teams. Terrain would slow any movement over the Washboard; therefore, the nonpersistents were initially strikewarned in Colorado Wadi (sometimes called Wash) and Debnam Pass. The details of our other special munitions triggers for all seven COAs are shown in the artillery decision support matrix (Figure 4).

Execution of Decision Point Tactics

First Decision Point (Figure 5). Division reconnaissance reported one task force up and one back with the lead task force moving along axis DALLAS at a moderate rate of ad-

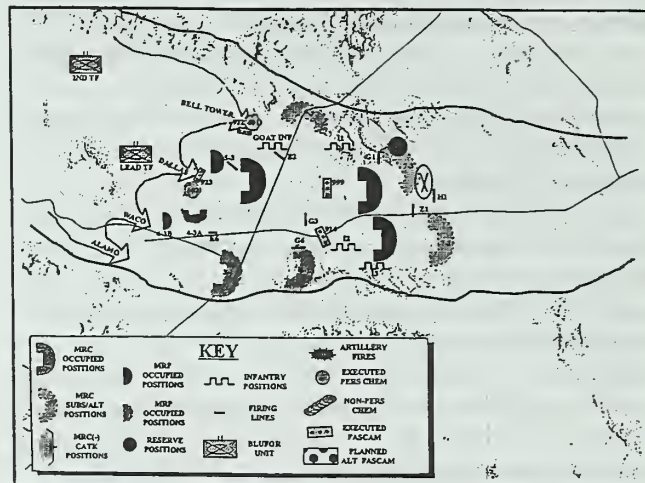


Figure 5. First decision point, COA 1.

vance. The second TF's initial orientation was along BELL TOWER. The MRB commander decided to execute COA 1, DALLAS option. BP 3-1 repositioned to BP 4-3A (2/6) to set bottom portion of the "L" and BP 4-3B (1/2) as flank security. The AT5 vicinity G6 also repositioned vicinity E6 to overwatch engagement area east of Debnam. BP 5-3 continued to hold, awaiting the final read on the second task force.

Additionally, the regimental commander strikewarned

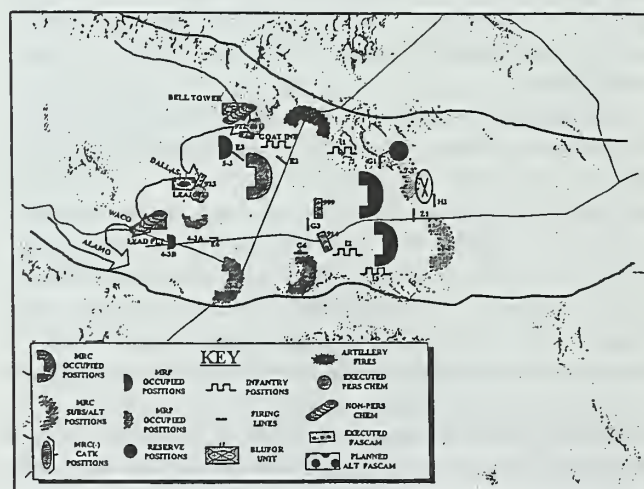


Figure 6. Second decision point, MRC withdrawal.

persistent chemical target 602, FASCAMs #1. He continued to hold target 922 until the commitment of the second task force. FASCAM #2, target 923 were also set to fire on trigger. The nonpersistent was set to fire on trigger behind Debnam Pass. The nonpersistent in the Colorado Wadi was held awaiting a clear read. The regimental reconnaissance element then adjusted its efforts to confirm or deny commitment of the second task force, and was also set to trigger the FASCAM mission on Debnam Pass.

Second Decision Point (Figure 6). The lead team of the lead task force entered Debnam Pass, which was blanketed in BLUFOR smoke. The deception positions in Debnam Pass, smoke and fires from BP 5-3, and regimental reconnaissance BMPs caused the lead team and the task force to halt their forward movement. The BLUFOR commander had the lead team with engineers continue to look for a bypass to the deception tank ditch in Debnam Pass. Heavy BLUFOR smoke caused the OPFOR scout to trigger the execution of FASCAM 923 too early, causing the FASCAM to land in front of the lead team instead of on the fourth team. Faced with the FASCAM and the perceived forces in Debnam Pass, the BLUFOR commander ordered the lead task force to leave one team in Debnam Pass with engineers while diverting the remaining teams through an adjacent cut into the Colorado Wadi. This maneuver exposed the flank of BP 4-3A. Additionally, the time delay by the lead task force caused the second task force to come abreast oriented on BELL TOWER.

With two task forces abreast, the MRB commander's decision point condition for withdrawal had been met. The MRB commander then ordered 4-3A to withdraw to BP 3-1 with 4-3B covering its withdrawal. BP 3-3 was ordered to withdraw to BP 6-3 with the forces in BP 5-3 covering the MRC's withdrawal from BP 3-3. The AT5s were ordered to cover the withdrawal of both MRCs. To assist in the withdrawal, the regimental commander fired nonpersistent chemicals on forces in WACO and BELL TOWER; he also fired persistent chemical 602 and reinforced these fires with CAS and high-explosive artillery fires.

The lead task force in Colorado was initially delayed by nonpersistent chemicals and BP 4-3B, which destroyed the lead platoon, losing one BMP in the process. In reaction, the task force maneuvered into the persistent chemical. CAS, artillery, and persistent chemical fires reduced two company teams from this task force, also allowing the forces remaining in 4-3B to withdraw to BP 3-1. BP 3-1 then withdrew to BP 6-1. The second task force was delayed in Brown Pass by fires, nonpersistent chemicals, and the brigade identification of obstacles near BP 3-3. This delay allowed the platoon in BP 3-3 to withdraw to BP 6-3 without coming under direct-fire contact.

Third Decision Point (Figure 7). Recognizing that the OPFOR had withdrawn, the brigade committed its second task force toward the Peanut/Chod Gap. The first task force continued to reorganize after running into the persistent chemical and direct fires from BP 4-3B. This task force had about a company team (plus) remaining. In response, the

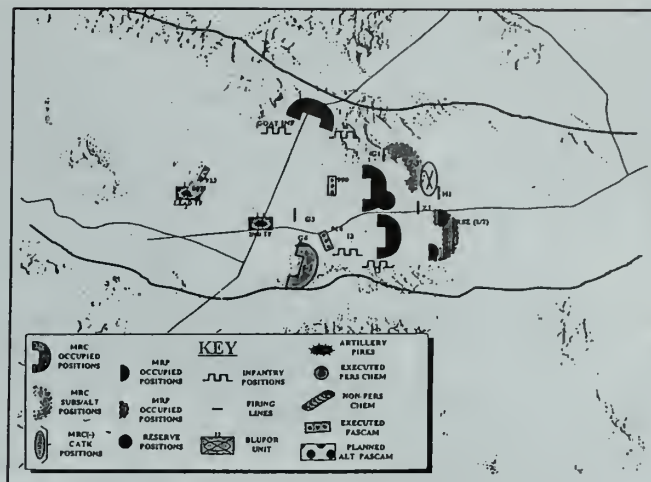


Figure 7. Third decision point.

MRB commander decided on Zone 2, COA 1.

The commander first withdrew one MRP from GBP 6-1 to 7-1. He also committed the reserve from R1 to H2 and ordered BP 3-2 to reconstitute a 1/2 reserve. Because of enemy orientation, the commander decided to have BP 6-3 and Goat Infantry (TF Rampage) remain in place. The AT5s at G6 and G3 continued to cover the withdrawal and significantly reduced the lead two company teams of the second task force. The AT 5 at G3 then withdrew to Z1.

Fourth Decision Point (Figure 8). As the second task force, augmented by the remaining company team from the first task force, continued to attack toward Hill 876/Peanut/Chod Gaps, the MRC in BP 6-3 reported that the brigade had no northern flank security. The MRC commander in BP 6-3 recommended that he reposition his forces to the vicinity of G3 and Hill 800 and attack by fire into the brigade's northern flank. The MRB commander decided to execute this hasty attack but directed the Goat Infantry and the AT5 in E2 to remain in position and secure the right flank of the maneuvering MRC.

At this point, the execution of the operation was turned over to the cross-talking MRC commanders with the MRB

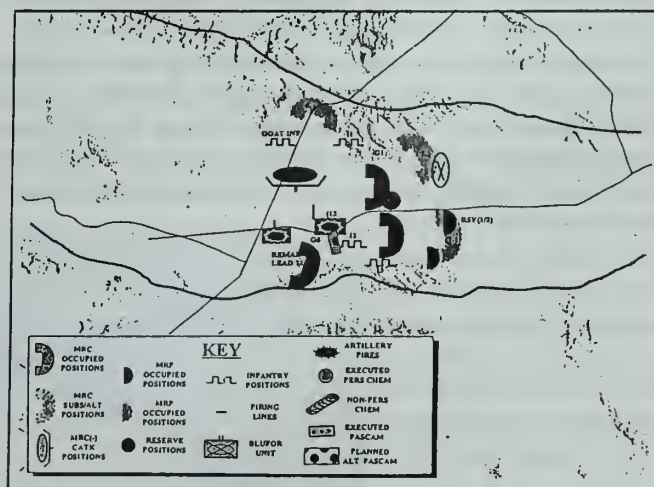


Figure 8. Fourth decision point, BP 703 counterattack.

and regimental command posts eavesdropping and supporting the operations with fires and other combat multipliers. The brigade, unaware of the threat to its northern flank, continued to push through the Peanut/Chod Gap. Direct fires from BP 1-1, G6, I2, and I3, and the enveloping MRC from BP 6-3 coupled with indirect fires eventually destroyed the remaining brigade forces.

Effects of Deception

Often the OPFOR does not know the full effects of deception operations. In this case, the staff learned after the rotation that deception and preconceived beliefs significantly affected the BLUFOR plan and execution. One of the main ways of achieving deception goals is to reinforce the preconceived beliefs of the BLUFOR S-2s and commanders.

In this particular case, the S-2 believed that the OPFOR never fought a security zone with initial and subsequent positions as outlined in doctrine but instead held and fought in just one location. The S-2 had templated an OPFOR defense in the vicinity of Iron Triangle, Hill 876, Hill 780, and Chod Hill. This template was reinforced by the UAV's detection of logistics operations, coordination meetings, and preparation of BP 3-2 and 1-1 activity in that area. Although activity was detected in and behind the passes, this element was written off as a screening force that would displace before fighting. And although some intelligence sources indicated otherwise, the brigade continued to believe that the fight would be a single-echelon defensive battle. It was not until the division maximum engagement line (MEL) feed, four hours before LD, that the brigade realized there would be serious resistance in the vicinity of the passes. By then it was too late to change the plan. As a result, the brigade's plan was flawed from the start.

The MRB commander prepared a platoon deception position with turret hulls and a shallow tank ditch to initially show strength in Debnam Pass and try to influence the brigade commander to avoid this avenue of approach; however, this actually worked against the OPFOR. The brigade had a plan, and it ignored intelligence reports in the passes, regarding them as screening operations. Therefore, the brigade's maneuver plan was not influenced by the deception effort until they got into the passes. During execution, the deception positions delayed the enemy as planned, but the early firing of the FASCAM actually forced the lead task force to maneuver out of the developing fire sack. This in turn forced the MRB commander to withdraw his forces earlier than desired.

There are two key points to this discussion. First, many units have preconceived ideas of how the OPFOR will fight and tend to believe their perceptions without evaluating the available information. In short, they fight their plan instead of the enemy. The OPFOR takes advantage of these errors. Second, deception operations are a two-edged sword that can work against a plan as well as support it. More often than not, they work very well if they are planned as part of an operation instead of as a mere afterthought.

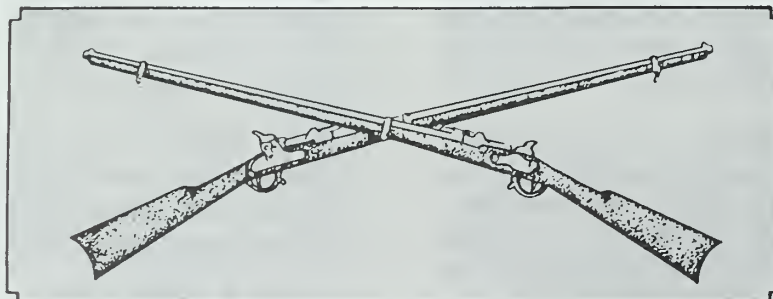
Decision point tactics are essential to fighting the fluid battlefield conditions during the security zone battle. The four imperatives effectively summarize the successful execution of decision point tactics during the security zone mission:

- A unit must have good battlefield vision to clearly identify the conditions necessary to execute a specific decision. The complexity of the security zone battle maneuver plan necessitates a solid wargame and rehearsal process to help attain this vision.
- Successful reconnaissance and counterreconnaissance efforts are essential to identifying the decision point conditions and denying the same to the enemy.
- The OPFOR's highly trained crews and platoons are the foundation for the execution of decision point tactics. Without this capability, complex battlefield maneuver while in contact is impossible.
- Deception operations in support of the security zone battle are essential to gaining the time needed to get inside the enemy commander's decision cycle.

Decision point tactics are neither unique nor new, but they form the foundation for the OPFOR's successful execution during the security zone fight.

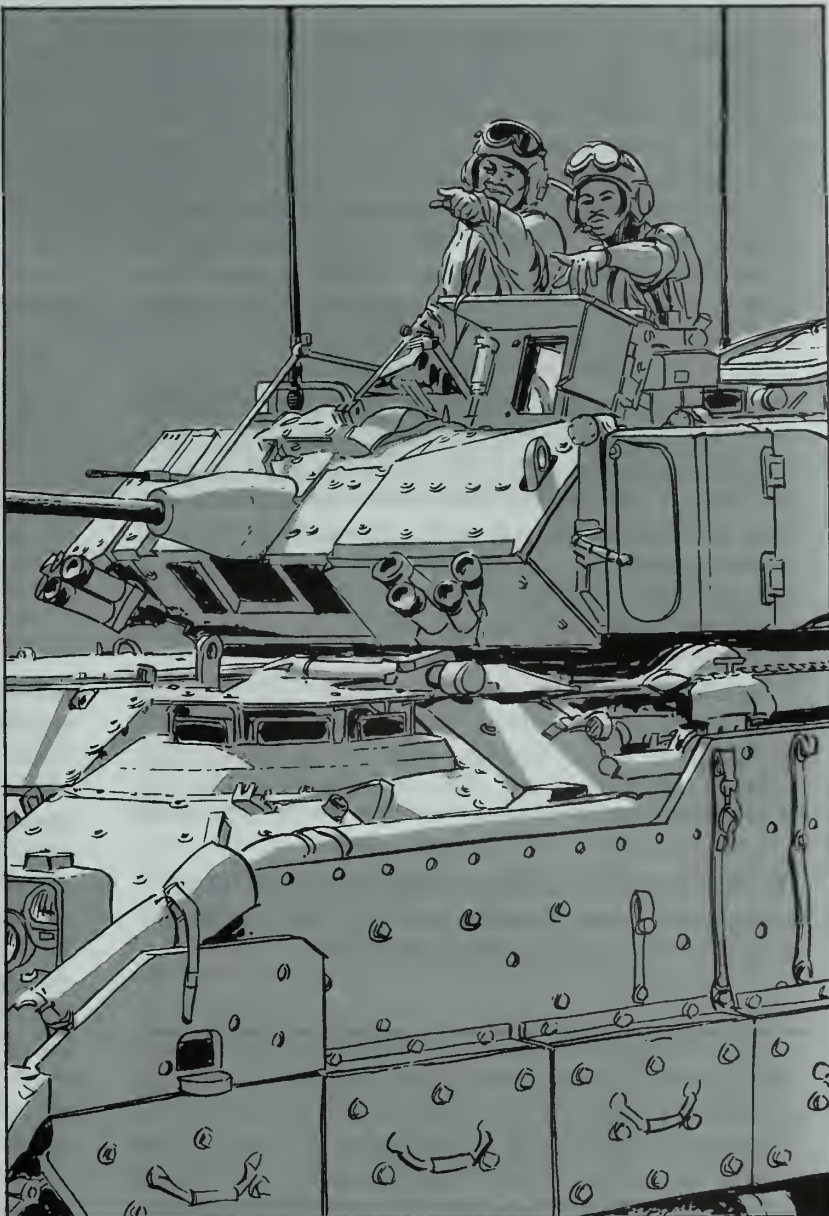
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THE NEW BRADLEY GUNNERY STANDARDS

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In January 1997, as part of the train-up for its deployment to Bosnia, our battalion—the 2d Battalion, 2d Infantry Regiment, 1st Infantry Division—became the first unit in Europe to qualify Bradley infantry fighting vehicle (BIFV) crews under the guidelines set by the new Field Manual (FM) 23-1, *Bradley Gunnery*, dated 18 March 1996. These new gunnery standards presented a number of surprising challenges, not only for the crews but for unit master gunners and leaders as well.

As a result of our collective experiences, we discovered a number of strengths and weaknesses in the new manual in the area of crew qualification gunnery. This discussion of crew gunnery focuses on technical rather than tactical proficiency, addressing lessons learned concerning the new Bradley Table (BT) VIII tasks and our observations on some of the strengths and weaknesses.

The new version of FM 23-1 establishes a crew qualification table of ten single-firing-vehicle tasks. Of those ten tasks, five are designated as day tasks and five as night tasks,

with four of the ten designated as swing tasks (those that may be fired either day or night).

The table designates the tactical scenario—offensive or defensive; firing conditions—auxiliary sight, nuclear, biological, chemical (NBC), manual engagement, commander's engagement; and the type of target—high-explosive (HE) stationary, armor-piercing (AP) moving, coaxial point—while giving unit commanders and master gunners the latitude to develop specific range scenarios.

In accordance with the commander's intent and an estimate of the situation (including the terrain or ranges available), master gunners set the actual type of targets, range to targets (and thus time allowed to kill them) and the actual sequence of firing tasks. This gives units the opportunity to tailor training to likely unit missions (in accordance with FM 25-101, *Battle Focused Training*), while maintaining a baseline throughout the Army.

The gunner's manual defensive engagement task (Task 1), undoubtedly a necessary part of crew qualification gunnery,

has proved to be one of the easier tasks for the crews to master. The transition has been made easier by the requirement to fire manual tasks in the unit conduct-of-fire trainer. However, master gunners should put the target in a range band beyond 1,000 meters, giving the crews 18 seconds of exposure time to kill the target. Since using manual controls to adjust on target obviously takes longer than using the power mode, this range provides a longer exposure time without putting the target at a range that results in a greater ammunition dispersion factor.

The gunner's defensive auxiliary sight engagement (Task 3) offers several challenges to units. In fact, poor planning on the part of unit master gunners could make it impossible for a crew to succeed on this task. The troop target must be positioned at less than the 900 meters maximum effective range allowed, because it is nearly impossible for crews to see their tracers with the auxiliary sight at 900 meters. In addition, range greater than 900 meters must be specified for the HE stationary target (a truck) to keep crews from engaging it with the coaxial machinegun.

An alternate task should be specified for use in periods when weather or other limited visibility conditions make it impractical to use the auxiliary sight. At the Grafenwoehr Training Area in Germany, units often spend hours waiting

We discovered a number of strengths and weaknesses in the new Bradley gunnery manual in the area of crew qualification gunnery.

for fog to clear on ranges. Even when the fog clears, there are times when it is only enough for the crews to identify the range fans. Firing with the auxiliary sight in such conditions is impossible, and waiting for conditions to improve is not feasible because of the tight range schedule. An alternate task would enable commanders to continue training despite poor weather.

The commander's offensive engagement (Task 4) proved difficult for our Bradley commanders (BCs) to master. The biggest problem is verbally getting out the entire fire command and gunner's response terms before the BC must fire. Many of the crews that failed this task gave excellent fire commands but either failed to destroy the target in time or simply did not fire in time. While we have proved that it is an achievable standard for BCs to issue a complete multiple fire command in the offense, the combat effectiveness of doing so is questionable. An abbreviated fire command would probably be much more effective in both combat and qualification. (More on this subject later.)

The gunner's offensive NBC engagement (Task 7) tends to create problems for both master gunners and crews, because (using the new "determining factors" of Table 2-4) the priority of targets changes with their placement on the range. This causes significant problems for crews in terms of engaging the most dangerous target first (a leader task). Therefore, it also causes problems for unit master gunners in

terms of designing scenarios that will challenge crews without confusing them.

The commander's offensive engagement (Task 9) has proved to be a fairly simple task, although range safety certainly becomes a problem with both the BC and gunner down inside the turret and the Bradley crew evaluators unable to confirm turret orientation. Orientation between the range fans is easily lost, creating the possibility of rounds fired out of the impact area.

A quick fix that we implemented was to ensure that our crews understood their right to call "cease fire" if they became disoriented at any time while performing the tasks. Since an unsafe range condition existed, we would immediately "alibi" the crew, stopping the task and rerunning it. This has created our equivalent of the tankers "aft cap," offering crews an alibi to reduce the temptation to continue under unsafe conditions.

Crew Gunnery: What's Wrong

The first shortcoming we discovered was in the area of ammunition allocation: Crews do not currently receive an adequate allocation per target. The 25mm rounds are allocated on the basis of target type (Table 1), but no rounds are allocated for the changeover from one type of ammunition to another. The cycle of function of the M242 gun continually keeps a round on the face of the bolt. When the ammunition selection is changed, this cycle causes a round of the previous ammunition selection to be the first round out of the gun. As a result, FM 23-1 (paragraph 2-8, page 2-33) dictates that the crew fire two sensing rounds when changing ammunition. The burst that follows will be three to five rounds followed by another burst of three to five rounds to kill. This results in one sensing round and two bursts on target only if the bursts are limited to one three-round burst and one four-round. The problem with this "new math" is illustrated in Table 2: Even if the crew fires in this manner for every task, its ammunition allocation will still fall six rounds short.

There are a number of possible solutions to this problem. One is to change FM 23-1 to include changeover ammunition in the allocation, giving each crew additional rounds to ensure that it has the proper allocation per target type and the rounds required for changeover. Another solution is to give local master gunners the authority to change ammunition allocations to reflect what is actually needed to complete the table in accordance with both the manual and the realities imposed by local range complexes. In this case, master gunners need to be instructed to look at the scenario they will use and change the allocation as necessary to ensure that the crews have enough ammunition to complete the table. In addition, future versions of the Bradley (in which the ballistic computer is used to put super elevation into the gun system) should be designed to ensure a first-round hit by not adjusting the gun elevation following ammunition changeover until after the first round has been fired.

An additional ammunition allocation problem that must be addressed arises from the limited guidance concerning range-to-target requirements. According to FM 23-1 (paragraph

CURRENT AMMUNITION ALLOCATIONS

25mm gun:

8 rounds TPDS-T per AP point target.
20 rounds TPDS-T per aerial point target.
8 rounds TP-T per HE point target.
25 rounds TP-T per HE area target.

Coaxial machinegun:

50 rounds 7.62mm per RPG or ATGM team or unarmored target.
100 rounds 7.62mm per area target.

Total BT VIII ammunition allocation:

TPDS-T 48 rounds
TP-T 48 rounds
7.62mm 450 rounds

Table 1

Bradley Table VIIIA 25mm Ammunition Comparison
(Depicts day phase ammunition firing five day tasks and five night tasks.)

	TASK 1	TASK 5	TASK2 (Multi Task)		TASK 3	TASK 4	TOTAL	ALLOCATED
HE	8	1	8	1	8	1	27	24
AP	1 ¹	8	1	8	1	8	27	24

¹ First AP round (Task 1) is result of confirmation fire being conducted using AP (TPDS-T) ammunition.

Table 2

TARGET	KILL STANDARD
25mm Point Tgt	Hit with a minimum of 3 rounds.
25mm Area Tgt	Suppress 75% of target using a Z pattern (one round in 6 of 8 boxes).
Coax Point Tgt	(Troop) hit 1 target with 1 round; (Truck) hit with minimum of 3 rounds.
Coax Area Tgt	Hit one troop target with 1 round and suppress area with Z pattern.

Table 3

12-1a(6), page 12-2), "BT VIII...scenarios must contain a minimum of 1 day engagement and 1 night engagement at 600 meters or less and 1 day target and 1 night target at 1,400 meters or beyond." In fact, unit master gunners can place truck targets at less than 900 meters (paragraph 12-1b(6), page 12-3). Specifically, "Unarmored targets within 900 meters can be designated a coax point target. However, these targets must have a unique design easily identifiable to the crew (silhouette or thermal image). This reduces confusion as to what ammunition type is used to engage that target."

While this may reduce the ammunition selection problem for the crew, it creates additional problems for the master gunner—and, ultimately, for the crew as well. From an ammunition allocation standpoint, for targets at less than 900 meters the crew would use ammunition allocated for other coax point targets. From a scenario development standpoint, requiring one day engagement and one night engagement at 600 meters or less causes several problems. It either decreases the total kill time to 14 seconds for both targets (setting the crews up for failure), or it increases the surface area danger zone beyond the range fans (because of the length of the maneuver box and the short distance between the targets and the BIFV). The only task (among the day tasks) that does not create these problems is the day NBC task, which allows a crew 11 seconds to kill a coaxial machinegun area target and 18 seconds to kill a moving AP target.

A solution to these problems is to prescribe a realistic ammunition allocation per target (to include changeover ammunition) and range to target, and let unit master gunners determine round count based on local range scenarios. An additional advantage to this solution is that it gives master gunners the flexibility to create alternative scenarios, reducing predictability for the crews by moving even farther away from "canned" scenarios.

A second shortcoming we discovered lies in the area of kill standards, especially for the coaxial machinegun. Table 9-1 (excerpted here in Table 3) says that to achieve a kill on a coax area target, a crew must hit one troop target with one round and suppress the area with "an effective Z-pattern" in

order to "kill" the target. FM 23-1 does not say how many rounds must hit within the target area to achieve suppression.

Theoretically, a quick Z-pattern spray of the area can be accomplished using only ten rounds (including as few as two tracer rounds), but such a small number of rounds on target certainly does not achieve a standard of 75 percent of the target area, as exists for 25mm gun area targets. To effectively cover 75 percent of a typical target area—consisting of seven IRETS (infantry remoted target system, targets)—a crew would have to fire bursts (of 10 to 15 rounds) into the area of each of five targets.

From an evaluation standpoint, this cannot be effectively recorded using a thermal imagery sight, making it difficult (or impossible) to evaluate coax tasks fairly. From a threat standpoint, the time for the threat to kill the BIFV is only 13 seconds with the target at maximum range (900 meters). The BIFV, on the other hand, requires approximately one minute to fire the 100 rounds allocated for the target at a sustained rate of fire. One possible solution is to make the Z-pattern strictly a noncritical subtask (as is stated in paragraph 9-5, page 9-13) and not part of the kill standard.

The introduction of leader tasks has added emphasis to the role of the BC and has also raised some questions. A major component of the leader tasks is the appropriate fire command, and a primary part of every fire command is correct target identification.

If a BC misidentifies a truck as a personnel carrier (PC) or vice versa, the crew will not receive credit for killing the target (receiving a "U" for the task) because the ammunition type fired is not capable of killing the target (according to the kill standards in Table 9-2). However, if the BC gives no target description at all and the crew kills both targets, it will still receive a "P" rating for the task when it failed the leader task.

While the first case is certainly inexcusable, the second should not be rewarded with a passing score. Our argument for this is that, in the second case, there is no way of knowing whether the crew correctly identified the targets (and thus engaged it with the correct type of ammunition); conversely, in the first case, the only way of knowing whether

the crew self-corrected would be to hear a gunner's verbal correction over the jump net.

One solution is to make issuing any correct fire command (abbreviated, precision, or battlesight, single or multiple) a critical task, and to give credit for the task only if the command is used (with appropriate corrections by other members of the crew). In addition, crews should be required to wait until the first target "locks up" before issuing the fire command. (Given the relative predictability of the current scenario, crews are now theoretically able to issue a fire command immediately once the conditions for the task are announced, as there is no specific requirement for them to wait until targets appear.)

Requiring a fire command as a critical task while making any correct fire command allowable, along with a requirement for the crews to wait until targets are seen, will offer

One of the best changes to the manual is the replacement of crew cuts with critical, leader, and non-critical subtasks.

crews a more realistic, combat-oriented evaluation while teaching them better coordination (and that is the whole stated purpose of the critical and leader tasks). This will not only standardize gunnery training further, but it will train crews to kill the enemy faster.

The determining factors listed in paragraph 2-4b (page 2-24) now force crews to perform some confusing mental gymnastics at the same time they are trying to engage multiple targets. That paragraph says:

When multiple targets of the same threat level are encountered, the targets must be prioritized according to the threat they represent. The determining factors used to prioritize these targets are:

(1) Engage close-range targets before engaging long range targets.

(2) Engage stationary targets before engaging moving targets.

(3) Engage frontal targets before engaging flank or rear targets.

Under these guidelines, the "most dangerous" target changes in direct proportion to the distance at which the targets are placed on the range because of the threat target time to kill the BIFV time standard (in accordance with Table 9-4). For example, the stationary truck (in Tasks 2 and 7) is most dangerous when it is placed anywhere forward of, and up to 300 meters behind, the moving PC, because both targets have the same lethality (paragraph 2-4b). But placing an unarmored target in the same threat category as a light armored target does not make sense and should be reevaluated. Obviously, a stationary frontal truck should not represent the same threat as a stationary frontal PC at the same range band, but the current "determining factors" do not follow this logic.

An easily implemented solution, however, would be to add two clarifying criteria to the determining factors:

(4) When confronted with both a dismounted threat and a vehicle threat, engage dismounts first.

(5) Engage most heavily armored vehicle targets before lightly armored or unarmored targets.

Crew Gunnery: What's Right

Despite the somewhat negative connotation of the "What's Wrong" section, there are a number of aspects of the new FM 23-1 that are definitely right.

One of the best changes to the manual is the replacement of crew cuts with critical, leader, and non-critical subtasks. This new division of subtasks places a greater emphasis on the role of the Bradley commander. He is promoted from uninvolved passenger to the individual responsible for everything the crew does or fails to do; now, his role is just as vital to crew success as the gunner's is.

Just as in older versions of FM 23-1, there are still critical tasks that would mean life or death in combat and thus will fail a crew in training. In the past, those tasks were recognized as 30-point crew cuts; now, appropriately, critical tasks will kill (fail) a crew. Accordingly, there have always been several tasks or subtasks that were not mission-essential; these tasks, formerly known as 5-point crew cuts have now been de-emphasized as "nice-to-do" non-critical subtasks.

Another much-needed change to the FM is the integration of the T-P-U (trained, needs practice, untrained) method of quantifying evaluation. This has removed the previous emphasis on point scores, in which crews were pressured to achieve scores in excess of 900 points (on a 1,000-point scale). This in turn has resulted in a better use of training resources. Crews need only to refine the tasks they "failed" (evaluated as "Untrained") instead of an entire day or night run, thus saving range time and ammunition. In addition, the change brings FM 23-1 in line with the Army standard for evaluation found in FM 25-101.

In general, the new FM 23-1 contains many much-needed changes compared to the older versions, while adding a much-needed challenge to Bradley gunnery. Certainly, the days of battalion averages of more than 900 points are gone forever, replaced by better ways of measuring the proficiency of a unit's crews. In addition, the flexibility to create scenarios that challenge crews to achieve the next level of proficiency will ultimately create a better-trained force, ready to meet the challenges of the future battlefield.

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TRAINING NOTES



Fixing the Enemy In Guerrilla Warfare

MAJOR KEVIN J. DOUGHERTY

Enemies accustomed to employing guerrilla-type tactics are seldom willing to fight a toe-to-toe battle with a larger force. They survive by avoiding decisive engagement. Therefore, any plan to destroy this kind of enemy must include a detailed plan to fix him. This is consistent with what Field Manual (FM) 90-8, *Counter guerrilla Operations*, describes as a "locate, fix, and engage" methodology. Manuals in the 7-series (FMs 7-10, 7-20, 7-30) identify the requirement as "find, fix, and finish."

Two techniques have proved successful in fixing guerrillas who would rather hit and run than become decisively engaged:

The first is to establish blocking positions along likely escape routes. FM 7-30, *The Infantry Brigade*, addresses this technique when it says the *fix* force isolates the enemy, once the *find* force locates him, blocking both escape and reinforcement routes.

The second technique is the encirclement described in FM 90-8. The initial encirclement "is designed to cut off all ground routes for escape and reinforcement." Once this is accomplished, the enemy is captured or destroyed by "a simultaneous, controlled contraction of the encirclement."

The blocking position technique was

used successfully by the Greek National Army (GNA) during the Greek Civil War, and the encirclement technique was used successfully by United Nations forces during the Korean War. These two historical examples will help illustrate the techniques.

The Greek Civil War

After World War II, the GNA found itself embroiled in a guerrilla war against an enemy described by Edgar

By fixing the enemy, focusing resources on a specific area, and clearing systematically, the GNA gained tremendous success.

O'Ballance as "organized into small units of between 50 and 100 men each...scattered in the mountains, each being self-sufficient, responsible for its own fate and finding its own nook" (*The Greek Civil War, 1944-1949*, Praeger, 1996).

Against such a decentralized foe, initial GNA clearing efforts were woefully insufficient. O'Ballance sums up these efforts by saying, *As these were disjointed, restricted in scope, and only employed a limited number of troops, they did not achieve much success. The Democratic Army* (the Communist

guerrilla) *units were able to avoid the traps with comparative ease.* In short, the GNA had failed to fix the enemy.

Then on 25 February 1949, General Alexander Papagos became commander-in-chief of the Greek armed forces. Papagos centralized the haphazard plans of local GNA commanders and began to synchronize priorities and objectives. Under his leadership, according to O'Ballance, "the country was to be treated as a whole and to be swept from south to north." This approach is similar to the linear technique for search and attack (Figure 1) described in the article "Search and Attack," in the November-December 1994 issue of *INFANTRY* (pages 41-44).

A start in this direction had already begun in December 1948 when the Greek Navy moved a complete infantry division and four commando units to the Peloponnese peninsula, where some 4,000 insurgents were known to be operating in small groups in the mountains. After dropping off the troops, the Navy patrolled the coastline to keep supplies and reinforcements from reaching the insurgents. In so doing, the Navy fulfilled the FM 7-30 requirement to isolate the enemy.

By fixing the enemy, focusing re-

sources on a specific area, and clearing systematically, the GNA gained tremendous success. By mid-January 1949 all sabotage had ceased in the Peloponnese, and by 16 March the Greek government was able to announce that the peninsula was completely clear of insurgents. With the situation thus in hand, government troops could now be released for clearing operations on the mainland.

On 10 July the Greeks experienced a windfall of assistance in fixing the guerrillas when Josip Tito, in an effort to distance himself from Josef Stalin, announced that he would begin a progressive closing of the Yugoslavian border with Greece. This decision greatly reduced the guerrillas' freedom of movement and caused Nicholas Zakhariadas, the commander of the Democratic Army, to turn to positional warfare.

Accordingly, Zakhariadas concentrated 7,000 troops in the Visti Range and another 5,000 just to the south in the Grammos Range. Because he had systematically cleared most of the rest of Greece, Papagos was now able to concentrate six of his eight field divisions against the Communists. He began his offensive on 5 August, and by 16 August the last organized resistance in the Visti area had been overrun. Once again, however, many Communists escaped into Albania and then reformed in the Grammos mountain range.

On 19 August, with much-appreciated air support in the form of American-supplied Curtiss Helldivers, the GNA attacked the Grammos. Key to the attack was the seizure of the Starias and the Baroukas passes, the two main routes from the Grammos into Albania. (These routes had been so extensively used by the Communists during the previous few months that they were nicknamed the "twin boulevards to Athens.") Here the GNA employed blocking positions along likely avenues of approach to fix the guerrillas.

With the enemy thus fixed, the end was just a matter of time, and by 30 August the GNA controlled the Grammos Range. Although some 8,000

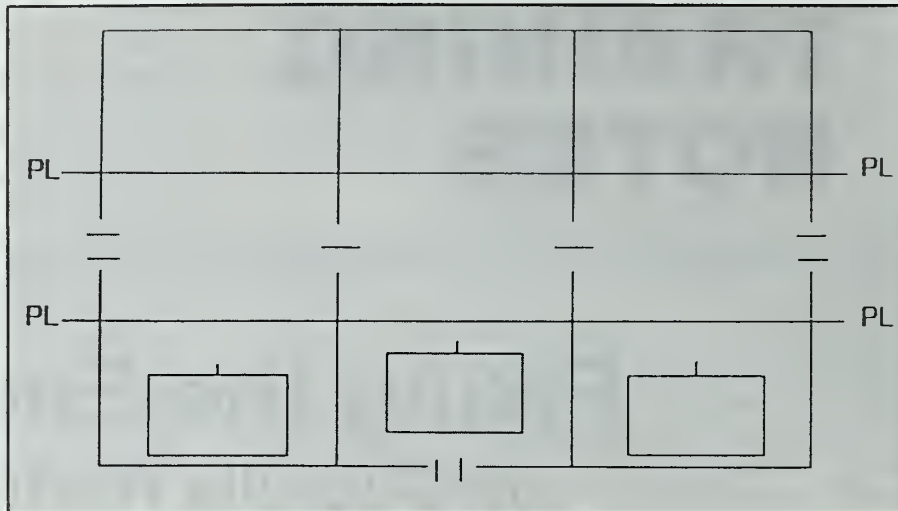


Figure 1. Linear technique

Communists managed to escape into Albania, by this time the latter had lost its enthusiasm for the struggle. On 26 August, Albania announced that all armed Greeks found in the country would be disarmed and detained. Now a combination of diplomatic and military realities had the insurgents truly fixed. On 16 October, the Communists announced a cease fire. Once confined to Greece, the insurgency failed.

Operation Ratkiller

Guerrillas were also a problem for United Nations forces during the Korean War, and November 1951 brought

The ROK forces continued their antiguerrilla operation using an encirclement variation that FM 90-8 describes as the "hammer and anvil."

an upsurge in such activity. As usual, the biggest problems occurred in the mountainous Chiri-san region in southwestern Korea. In response to this development, Eighth Army commander Lieutenant General James Van Fleet (who, incidentally, had been the head of the Joint U.S. Military Advisory and Planning Group during the Greek Civil War) ordered the Republic of Korea (ROK) Army to establish an antiguerrilla task force composed of the ROK Capitol and 8th Divisions, both minus their artillery units. Van Fleet wanted the task force operationally ready by the

first of December. Its first mission would be to stamp out guerrilla activity in the hotbed around Chiri-san.

This was the beginning of the sardonically named Operation *Ratkiller*. On 2 December Lieutenant General Paik Sun Yup's Task Force Paik initiated its operations by moving in from a 163-mile perimeter around Chiri-san. The intent was to cordon off the troubled area.

The 8th Division advanced southward and the Capitol Division northward. Throughout the area, National Police, youth regiments, and security forces established blocking positions to prevent guerrilla escape. For 12 days, this phase of the operation produced a continually tightening noose, which FM 90-8 describes as "contraction" (Figure 2). By 14 December, a total of 1,612 guerrillas had been killed and 1,842 taken prisoner.

On 6 January the ROK forces continued their antiguerrilla operation using an encirclement variation that FM 90-8 describes as the "hammer and anvil." In this technique, one or more units in the encirclement remain stationary while the others drive the guerrilla force against them. In this case, the 26th Regiment of the Capitol Division provided the anvil, setting up blocking positions north of the Chiri-san mountains, while a cavalry regiment provided the hammer attacking from the south along two converging axes (Figure 3). Guerrillas that managed to escape the

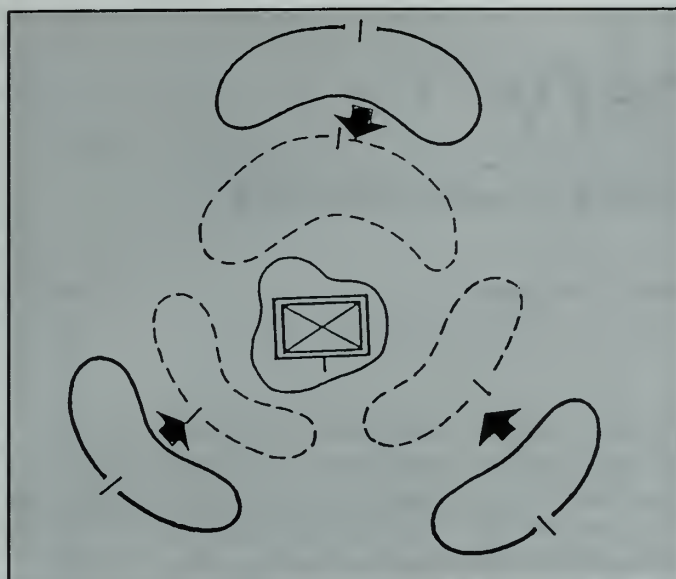


Figure 2. Contraction Technique

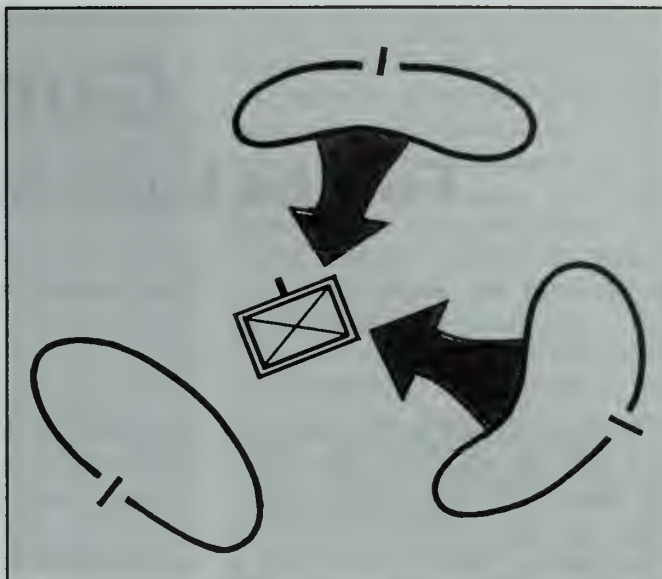


Figure 3. Hammer and anvil technique.

METT-T ANALYSIS

	BLOCKING POSITION	ENCIRCLEMENT
MISSION	OK to allow some enemy to escape (8,000 guerrillas escaped past the GNA during the Grammos attack).	Must destroy or capture all enemy (Operation <i>Ratkiller</i> killed or captured 20,000 guerrillas).
ENEMY	Has a base to withdraw to or receive reinforcements from (Greek guerrilla base was Albania).	Location specific enough to allow encirclement (Chisi-ran, Korea).
TERRAIN	Avenues of approach defined and limited ("Twin Boulevards to Athens").	Numerous avenues of approach.
TROOPS	Relatively few required.	Many required.
TIME	Restricted (attack on the Grammos lasted about two weeks).	Much available (Operation <i>Ratkiller</i> lasted three and one-half months).

inner ring were policed up by the outer ring. What was believed to be the core of the guerrilla forces in South Korea was destroyed during this phase of Operation *Ratkiller*.

By the time this operation officially ended on 15 March, some 20,000 guerrillas had been killed or captured. General Matthew Ridgway, Commander-in-Chief of United Nations forces, reported that the guerrilla "irritation was ended for good." A large contributor to this success had been the detailed and extensive effort to fix the enemy through encirclement.

As shown in these two examples,

both the blocking position and encirclement techniques can be effective means of fixing the enemy. Any decision on when to use which technique must be based on an analysis of the factors of METT-T (mission, enemy, terrain, troops available, and time). The accompanying table can be used as a guide in making this decision.

The FM 7-30 blocking-position approach to fixing the enemy requires defined and limited avenues of approach and the ability to accept some enemy escape along avenues that are not blocked. It is easier to determine the avenues of approach when the en-

emy is depending on a base of operations for supply and reinforcement. The Greek example also shows the need for strategic (diplomatic) isolation as well as tactical isolation. The blocking position technique may require fewer troops than the encirclement, because only selected positions are occupied instead of an entire 360 degrees, and less time because there is no requirement for contraction.

The FM 90-8 encirclement approach to fixing the enemy requires fairly good intelligence on the enemy's location, as well as many troops and much time. Its advantage is that it can cover all avenues of approach and therefore limit the enemy's chances of escape.

Whether the friendly commander chooses one of these two techniques or some other method, his requirement to fix the enemy remains the same. It is not efficient to allow a sizeable number of enemy soldiers to escape and live to fight another day when a little planning can fix and destroy them. Commanders in Greece and Korea wrestled with and solved this problem, and today's commanders can learn from their successes.

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Gunnery

For the Light Infantry Company

CAPTAIN MATTHEW M. CANFIELD

The basic mission of the rifle squad is to seek out, close with, and destroy the enemy by fire and maneuver, or to repel the enemy assault by fire and close combat. Today's Army needs a comprehensive model for light infantry gunnery that focuses on that mission.

For a gunnery program to be successful, all soldiers must know and understand their assigned weapons and be able to use them effectively both day and night. I offer here a model whose goal is to teach infantrymen proficiency with their assigned weapons within the confines of training requirements and certification standards.

This model includes basic marksmanship and the fundamentals of employment for every weapon and weapon system carried by the light infantry company (with the exception of company 60mm mortars). These weapons include the M16A2 rifle, M60 medium machinegun, M249 light machinegun, M47 Dragon, M203 grenade launcher, M9 pistol, AT4 antitank weapon, M67 fragmentation hand grenade, and M9 bayonet. The training is progressive and sequential from the individual to the platoon collective level.

The centerpiece of this gunnery model is a live-fire exercise (LFX) that enables the commander to train his company under combat conditions. LFXs integrate individual and collective marksmanship into unit tactics and standing operating procedures (SOPs) while contributing significantly to combat readiness. Training soldiers to fire accurately is the single most important aspect of an LFX. It is therefore critical that commanders have a way of providing feedback to the soldiers at the

completion of the exercise. Training Circular (TC) 7-9, *Infantry Live-Fire Training*, dated 30 September 1993, is an excellent source of information on developing LFX ranges and feedback techniques.

Units must conduct force-on-force training with MILES and blank rounds before each LFX. This training forces soldiers to react and perform as they would in combat and improves movement techniques, command and control, and safety. A well-run LFX enables soldiers to build confidence in themselves, their weapons, their buddies, and their leaders.

The company commander, as the master trainer, plans and allocates time and resources for all gunnery training.

The centerpiece of this gunnery model is a live-fire exercise that enables the commander to train his company under combat conditions.

He determines the training proficiency of his company based on an assessment of the unit's mission essential task list (METL), as well as input from his platoon leaders. His objectives are:

- To prepare a well defined, highly structured gunnery program.
- To standardize all range and live-fire scenarios.
- To validate the junior leaders' ability to plan, prepare, and conduct challenging, realistic, combat-oriented live-fire ranges.
- To develop several off-the-shelf live-fire training packages that support final preparation for combat operations. These off-the-shelf scenarios are inter-

changeable, giving the commander a template to superimpose over training windows. This flexibility enables him to train different METL tasks within the framework of the gunnery program.

Once the commander has assessed his METL, he determines which task the company will train and then selects the platoon collective tasks that support it. He incorporates the appropriate platoon collective tasks (derived from ARTEP 7-8 MTP) into the live-fire scenario that time, resources, and common sense allow.

The first sergeant is the company master gunner and primary advisor to the commander on all aspects of the company gunnery program. He assigns an NCO (squad leader) as assistant master gunner for each weapon. He makes sure the assistant master gunners are both qualified and certified to run a particular range or teach a block of instruction. Each assistant master gunner is the company subject-matter expert for the training techniques and procedures of the designated weapon. Each is responsible for building or selecting the appropriate range, conducting primary and advanced marksmanship training, and supervising the actual operation of the range.

For movement and maneuver ranges, the platoon sergeants are the master gunners, and the platoon leaders are the quality assurance officers for their respective platoons.

As the master trainer, the commander must validate his squad leader before executing gunnery. This leader training consists of the following:

- A briefback on each task or sub-task and standards.

GUNNERY TABLES FOR THE LIGHT INFANTRY COMPANY

TABLE I	Weapons familiarization instruction/primary marksmanship training. Zero the M16A2 rifle. Hand grenade practice course (IAW Expert Infantryman Badge standards). Bayonet assault course.
TABLE II	M16A2 qualification for record. Day and night NBC familiarization. AN/PAQ-4A with AN/PVS-7 night familiarization. Hand grenade assault course.
TABLE III	Primary marksmanship instruction on assigned weapons.
TABLE IV	Qualification for record with assigned weapons.
TABLE V	Advanced marksmanship training. Individual Quickfire lane. Day and night, with night observation devices. Buddy team movement lane.
TABLE VI	Fire team movement lane. Mission: Movement to contact.
TABLE VII	Squad maneuver lane. Mission: Movement to contact.
TABLE VIII	Weapons squad antitank section qualification. Mission: Attack, ambush, defend.
TABLE IX	Scouts—platoon break contact lane.
TABLE X	Scout platoon sniper qualification lane.
TABLE XI	Squad urban combat. Clear a building.
TABLE XII	Platoon live fire exercise. Mission: Movement to contact.

- A detailed range brief, including terrain model rehearsals for the maneuver ranges.

- All the events to be executed in preparation for the training.

The validation process ensures that soldiers receive proper and correct training according to established standards. The company commander is also responsible for briefing his battalion commander on the conduct of the ranges. This briefing should include a concept, a maneuver sketch, range fans, risk assessment, and the associated logistical details.

This gunnery model may require that commanders build their own ranges. Stationary, pre-existing ranges do not always give them the flexibility to tailor training to the specific missions and supporting tasks he designates. The purpose of this light infantry gunnery

model is to effectively tie basic marksmanship and qualification to combat maneuver on the battlefield. Light infantry gunnery tables provide a logical, progressive, team-building training program that satisfies the requirement for infantry units to maintain combat proficiency and readiness.

The instruction in Table I is the foundation of the gunnery program. All soldiers in the company qualify with the M16A2s, regardless of their assigned weapons, and all negotiate the hand grenade course and the bayonet assault course. This table focuses on the principles of marksmanship, operational characteristics of the M16A2, effective ranges (stationary and moving), proper maintenance, immediate-action drills, and the "spirit of the bayonet" to teach aggressiveness in combat.

The standards for qualification in

Table II are in Department of the Army Pamphlet 350-38, *Standards in Weapons Training*. All soldiers in the company qualify with the M16A2. Tables I and II are conducted twice a year in accordance with Standards in Training Commission (STRAC) standards.

The weapons in Table III include AT4, M47 Dragon, M9 pistol, M249 machinegun, M60 machinegun, and M203 grenade launcher. Soldiers learn the fundamentals of employment, operational characteristics, effective ranges (against both stationary and moving targets), maintenance, and immediate-action drills.

Qualification in Table IV is based on STRAC standards with modifications when necessary. It includes transition fires, NBC day and night familiarization, and night vision devices (NODs)—AN/PVS-7, AN/PAQ-4A, AN/PVS-4.

The quickfire lane in Table V teaches soldiers proper techniques for engaging targets accurately while moving. Soldiers acquire and engage pop-up targets as part of a timed event, both day and night, with NODs, and under NBC conditions. The buddy-team movement lane includes rushes, high-crawl, and low-crawl. Teams engage targets while learning to move under fire. The objective is to refine individual skills and teach soldiers how to move in combat while maintaining effective fires on an enemy. Soldiers perform this task day and night, with NODs, under NBC conditions, and negotiate this lane with bayonets fixed.

Table VI is a 200-meter lane consisting of an observation post (OP) and a bunker. The following tasks are evaluated according to ARTEP 7-8 MTP standards: Prepare for combat, move tactically, react to contact, conduct assault, consolidate and reorganize, and break contact.

Table VI evaluates fire-team proficiency. The objective is to produce a qualified and combat-ready infantry fire team. The table is performed day and night, with NODs, bayonets fixed, and under NBC conditions.

Table VII is a lane of 200 to 500 meters consisting of an OP and a bunker

to evaluate the following collective tasks according to ARTEP 7-8 MTP standards: *Prepare for combat, move tactically, react to contact, conduct attack, overwatch and support by fire, consolidate and reorganize, repel counterattack, and break contact.*

This lane evaluates squad live-fire proficiency. The objective is to produce qualified and combat-ready infantry squads. It is performed day and night, with NODs, bayonets fixed, and under NBC conditions.

Commanders choose supporting collective tasks for the primary lane mission. Suitable missions are: Perform reconnaissance, raid, ambush, and retrograde (ARTEP 7-8 MTP).

The length of the lane for Table VIII depends on the mission. Soldiers execute machinegun drills and fire the machinegun in the indirect fire mode. The collective tasks that support the above missions are: *Prepare for combat, move tactically, overwatch/support by fire, knock out bunker (AT4, Dragon), consolidate and reorganize.*

This lane evaluates weapons squad live-fire proficiency, with the squad augmented by a rifle fire team. The table is performed day and night, with NODs, bayonets fixed, and under NBC conditions. The focus of the scout platoon break-contact lane in Table IX is platoon proficiency. The objective is to develop a qualified and combat-ready

scout platoon. Scouts conduct an egress (by teams) live-fire lane engaging stationary and moving targets. Calls for fire are integrated into maneuver. It is performed day and night, with NODs, and under NBC conditions.

The focus of the lane in Table XI is individual marksmanship in an urban environment, conducted in a tire house with at least three rooms. The objective is to develop the squad leader's ability

The first sergeant is the company master gunner and primary advisor to the commander on all aspects of the company gunnery program.

to control and distribute fires in a close combat area. Soldiers acquire, shoot, and kill the target within a specified time. Soldiers practice clearing techniques, SOPs, and visual signals. The table is performed day and night, with NODs, bayonets fixed, and under NBC conditions.

In Table XII, suitable primary lane missions are: Perform reconnaissance, raid, ambush, and retrograde (ARTEP 7-8 MTP). Commanders choose collective tasks to support the primary lane mission. The length of this lane is usually 200 to 500 meters, depending on the mission, and consists of an OP and a bunker, trench, or similar objective.

The following collective tasks are

evaluated according to ARTEP 7-8 MTP standards: Prepare for combat, move tactically, react to contact, breach obstacle, knock out bunker, clear a trenchline, conduct attack, overwatch and support by fire, consolidate and reorganize, employ fire support, and defend.

The focus of Table XII is platoon combat proficiency, and the objective is to evaluate the skills of small-unit leaders. Conducted on a range suitable for a platoon maneuver live fire, it incorporates M60, Dragon, and AT4. It is performed day and night, with NODs, bayonets fixed, and under NBC conditions. It should be conducted three times a year.

Before the live fire in Tables VI, VII, VIII, IX, XI and XII, the assistant master gunner must ensure that each team or squad conducts a walk-through and a blank fire, both day and night. Soldiers must not participate in live fire until they have achieved the standards during blank fire, but once they have mastered the skills that live-fire training demands, they will be ready for the no-holds-barred test of combat.

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Techniques For an Air Assault Withdrawal

CAPTAIN FRED W. JOHNSON

Air assaults are often conducted along with other types of operations, including attacks or raids. Those operations sometimes also require helicopters to exfiltrate the unit once the mission is complete. Units planning an

air assault conduct course of action development and analysis on how to enter the objective. Unfortunately, they do not spend the same amount of planning time in developing a course of action for the withdrawal. As a result, the

withdrawal is not synchronized and is poorly executed, and if a withdrawal is under pressure from the enemy, soldiers could be exposed to fire or attack for long periods of time.

Traditionally, an air assault with-

drawal is used for missions similar to a raid, where the unit is not required to hold the objective, a withdrawal is required, and speed out of the objective area is a priority. Ensuring that the withdrawal is conducted efficiently requires an additional element in the normal task organization. This element must be able to secure the withdrawal pickup zone (PZ), mark the zone and chalk locations and possibly guide units into their chalk locations, and command and control PZ operations. The size of the element may vary from a squad to a company minus, depending on the level of the air assault. For simplicity, the element may be designated Team PZ with subunits organized into a security force and marking or guide teams.

The responsibilities of the Team PZ begin as soon as the unit is inserted and moves toward the objective. If the landing zone (LZ) is also to be used as the withdrawal PZ (which is not the ideal course of action), then the Team PZ remains at that location; if not, the team moves to another PZ location.

The following is a recommended list of Team PZ activities at the withdrawal PZ:

Preparation of the PZ

- The security team leader positions the security team to ensure that the PZ is secured.

- Depending on the size of the PZ and factors of METT-T (mission, enemy, terrain, troops, and time available), the PZ and surrounding woodline are cleared of enemy and obstacles.

- At a minimum, security teams are positioned on each corner of the PZ. Enemy avenues of approach are also blocked.

- A contingency plan is issued to the security teams (if not already covered in the operations order).

- The team PZ leader establishes the command post, which will become the "choke point" where the withdrawing elements link up and are funneled through to their chalks.

- The choke point will be to the rear of where the chalks will be marked.

- The chalk marking team leader designates the location of each chalk.

- During daylight, VS 17 panels may be used. During limited visibility, chemical lights can be used when necessary (ideally, these are not visible until the unit starts moving toward the PZ).

- If guides are used, they reconnoiter the route from the choke point to the chalk location.

- The team PZ leader maintains communication with the main body conducting the attack and, if possible, with the security force and the chalk marking team leader.

- Based on the number of radios in a unit, it may not be possible to maintain communication with all elements in the PZ security force, but PRC-126s may be cross-leveled within a unit to facilitate communication within the security force.

- If FM radio communication cannot be maintained with the PZ security team, there must be a prearranged signal to notify the team to withdraw to the PZ and their chalk locations.

- The leader also monitors the radio as the aircraft approach. The aircraft should communicate on the leader's frequency, which will probably be the command push. Again, depending on the number of radios available, another frequency can be used to communicate with the aircraft. This is the best technique because the commander will want to avoid clutter on his net and allow for control of the main body.

Execution of the Withdrawal

- When the team PZ leader is notified that the unit is withdrawing, guides move to the choke point and prepare to receive the unit.

- The chalk team marks the PZ.

- Depending on METT-T, a team may mark the PZ. Several infrared chemical lights can be positioned to guide the lead aircraft during periods of limited visibility. This technique is desirable for night operations when visibility is low. During periods of high illumination, it is more difficult for the pilots to see the chemical lights.

- As the main body enters the choke point, guides take the units to their chalk locations.

- If a sufficient number of personnel are not available to perform the duties of guides, the chalk team leader may act as the "traffic cop" and verbally direct the units to their chalk locations.

- The units from the main body should enter the choke point in chalk order. Chalks should be configured at the objective rally point (ORP) after the completion of the mission.

- The wounded and dead should be placed in separate chalks on aircraft that are dedicated to transport them to a medical facility (medical company, brigade support area, combat trains). This should be discussed during the air mission brief.

- The team PZ leader establishes communication with the approaching aircraft and provides terminal guidance.

- When the aircraft land, chalks load the helicopters.

- If there is more than one lift, chalks on subsequent lifts provide local security.

- The PZ security team is the last element to load aircraft. The teams move directly to their designated aircraft, or they may be required to go through the choke point.

- The team PZ leader notifies the commander that the PZ is clean.

Actions for the withdrawal must be briefed during the air mission brief in the same detail as the insertion. The team PZ leader must issue his own operations order and conduct detailed rehearsals. Contingency plans must be briefed and rehearsed, including actions on contact and movement to alternate landing or pickup zones. The air assault withdrawal is potentially confusing, and failure to plan for it in detail could be disastrous. With thorough and practiced SOPs, however, along with war-gaming, the withdrawal from an area of operations can be as smooth as the insertion.

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Training

For the Company Deliberate Night Attack

MAJOR CRAIG J. CURREY

The deliberate night attack is one of the most critical missions for a light infantry company. It challenges the company commander with extensive planning, rigorous troop-leading procedures, and violent execution—all done safely to a high standard. He wants to train his unit as it will fight in combat, but running a tactically sound range is made more difficult by efforts to conduct realistic training under peacetime safety restrictions.

This article will offer ideas on the tactical employment of a light infantry company in the attack, as well as on the construction of a live-fire range that will support the training objectives that will prepare the unit for such a mission.

Executing an attack range requires substantial effort on the part of a company. The assets and preparation to execute this range to standard require battalion staff involvement, with the S-3 shop operating the range. The staff provides logistical and observer-controller (O-C) support. The O-Cs give the company necessary feedback on execution and help the company ensure that the range operates safely. The S-3 must conduct a reconnaissance of the range with the battalion commander to receive guidance. He then plans and coordinates the range with the aid of an assistant S-3. The assistant S-3, usually a captain awaiting a command assignment, uses this training opportunity to learn the tactical employment of a light company, the interaction of members of the combined arms team, and the creation of surface danger zones required by Army Regulation 385-63, *Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat*.

A two-day block works well for a company attack range cycle. After

preparations at squad and platoon level in the training cycle, the first day focuses on the issue of an operations order (OPORD) by the staff to squad leaders and above. The OPORD and commander's confirmation backbrief are followed by a tactical exercise without troops (TEWT) on the range. During the TEWT, key leaders see the actual range and get the necessary safety briefings. The company then conducts troop-leading procedures for the rest of the first day. The units rehearse day and night with blank ammunition on the actual range or similar terrain, depending on the training level of the company.

The second day begins with a daytime blank-fire rehearsal on the range in which the O-C team and battalion commander certify that the company is ready to execute a safe live fire. A daytime live-fire iteration is followed by training to a real-time standard to correct any deficiencies before going into the night phase. The night phase again requires a successful blank-fire run followed by a live-fire iteration. The repetition and after-action reviews (AARs) from the day and night cycles help correct problems and improve the company's ability to train to the standard.

Planning the training requires numerous trips to the range control office and the range site. The range officer can help find the best terrain on which to conduct a company attack. He is the expert on surface danger zones and can help get the largest range fans that will yield wide right and left limits for the company. All safety issues must be resolved before the range is constructed so the training can be done as planned.

The range should appear as realistic as possible, and at the same time safety

restrictions should be obvious to the troops. The terrain must also be chosen to justify the tactical emplacement of the positions. Unrealistic and nontactical positions lead to complaints of "canned" live-fire. As the range develops, the scenario divides roughly into five stages: movement to the objective, the support-by-fire (SBF) position, the breach site, the assault, and clearing to the limit of advance.

Movement to the Objective. The exercise can begin with any tactical situation that requires a deliberate attack. The troops will need to be held in an assembly area (AA) with the timing controlled so that administrative functions can be accomplished apart from the company. The troops leave the AA with issued ammunition in pouches, move to an attack position, and then lock and load at the line of departure. The company commander uses an analysis of METT-T (mission, enemy, terrain, troops, and time available) to establish the movement technique and order of movement to the objective. On the basis of his planned actions at the SBF release point, the support element should generally lead, followed by the breach element, and then the assault element. The commander should task organize these elements, maintaining squad and platoon integrity as much as possible. He should move behind the lead element and remain forward where he can best control the fight throughout the attack.

As the unit approaches the objective, the company fire support officer (FSO) should execute continuous suppression of the objective to prevent the enemy from repositioning or effectively engaging the company. The fire plan supports the scheme of maneuver through continuous fires on the objective until

effective direct fires can be brought to bear by the SBF position. The minimum safe distances (MSDs) for indirect fire assets—which include the 155mm and 105mm howitzers and the 120mm, 81mm, and 60mm mortars—are important planning factors. MSDs are computed from a target on the objective to the gun position using an overhead or a flanking formula. Once the MSDs are known, the commander should select phase lines that closely align with them so he can adjust his fires before the lead element enters the zone of an MSD (Figure 1). Although range requirements demand that MSDs restrict troop presence in possible shrapnel areas, they are every bit as important in combat as well, for the same reason. The proximity of impacting rounds serves as the ultimate reminder of the importance of MSDs.

The FSO should adjust artillery and mortars to facilitate the company's continuous movement. As he approaches a phase line, he should start the new indirect fire system and turn off the system in use to ensure uninterrupted indirect fire suppression. If the transition between weapon systems is correct, the lead platoon should not have to stop moving at any phase line.

An additional fires consideration is rate of fire. The rate is based on the number of rounds available to suppress the objective until the SBF element can initiate fires. The timing of fires requires knowledge of the exact round count. If few rounds are available, rapid movement is necessary. Troops also may have to carry additional mortar rounds with them to sustain fires.

U.S. Air Force aircraft and attack aviation can also be used during movement, but the restricted air windows tend to limit the flexibility in the range.

Peacetime training considerations limit the feasibility of having rounds impact on the objective. First, the rounds will destroy the objective, preventing subsequent iterations on the range by different companies. Danger-close restrictions, generally within 600 meters for artillery, also may cause larger safety distances and control measures than might actually be used in combat. The artillery for the resulting combined arms live fire exercise may require still another layer of safety measures. Fires may need to be offset from the objective to compensate for these increased safety distances. Forward observers accomplish this realistically by shifting to new targets to seal off the objective area or suppress new targets. Finally, the possibility of dud rounds will restrict subsequent maneuver by a dismounted force on the objective. This fact alone limits any use of live indirect fires on the objective.

As the company reaches the SBF release point, the various forces diverge as necessary. The SBF element generally moves first to its position while the breach and assault elements proceed to the assault position. Although movement to the objective continues, it now focuses on different elements in their positions.

Support-by-Fire Position. The SBF element is the most critical in the company attack. If its fires do not continuously suppress the enemy, the breach may fail and the assault never occur.

The company commander should therefore consider personally positioning the SBF element instead of leaving the decision to a less experienced platoon leader or the executive officer. Although METT-T may prevent the commander's placement of the SBF element, it should be considered before accepting an alternative.

On a range, the SBF position is the most difficult to determine. Its placement requires a 15-degree shift with positive stops for machineguns as troops maneuver within at least 30 meters of the round impact (Figure 2). To train the SBF element, there should be at least one shift during the assault instead of a lifting of fires. This shift requires an additional 15 degrees, and such a shift at 400 to 600 meters requires a large piece of land. The ideal field manual distances may conflict with safety restrictions. The 15 degrees can be achieved more easily for a given range by moving the SBF position closer to the objective. Although the full range of crew-served weapons is limited, this move may be necessary to conform to range regulations. When designing the range, the range officer-in-charge (OIC) may sometimes have to use an M2 aiming circle instead of a lensatic compass to make sure he is using every mil of available firing fan (15 degrees equals 267 mils). Precision also pays off in building an objective in which bunker targets are sited so as to themselves mark exact shifts, maintaining the required safety distances.

Occupying the SBF position at night is difficult, and the task is made more challenging by the emplacement of trip

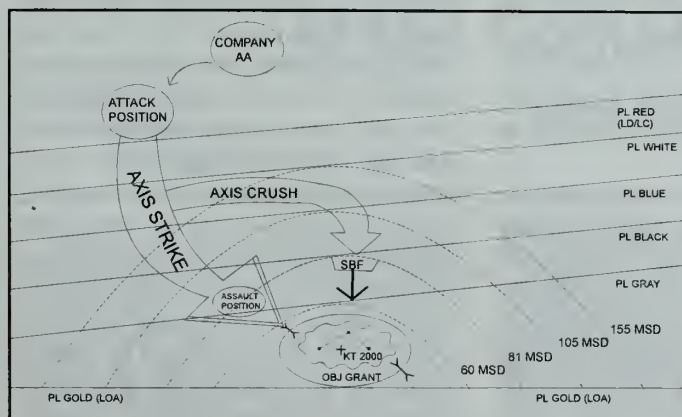


Figure 1

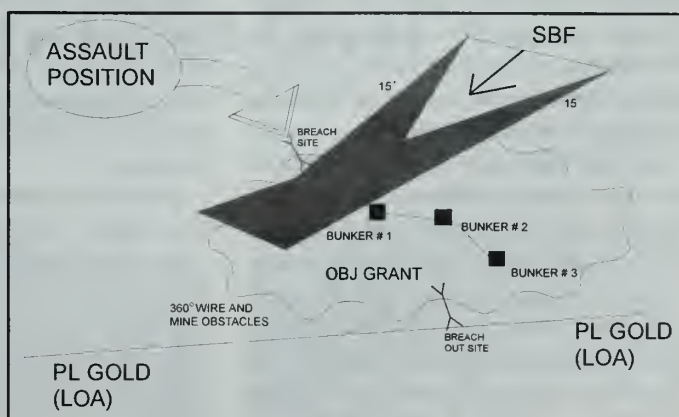


Figure 2

flares or smoke pots. Trip flares are effective countermeasures for the enemy, and can hamper nonilluminated attacks. The flares blind the AN/PVS-7s, requiring soldiers to remove the goggles quickly and then put them back down using the helmet harnesses once the flares burn out.

The commander or SBF leader conducts a leader's reconnaissance with key personnel. He uses the ground commander's pointer (GCP-1A) to delineate limits on the objective and sectors of fire. As the squad leaders come forward, they use the AN/PAQ-4C infrared aiming light, on or off their weapons, to mark bunkers for gunners to engage. The gunners use their PVS-7s to put their own PAQ-4C beams on the target. Infrared sources must be used sparingly to avoid detection if the enemy has his own night observation devices (NODs).

Ideally, the range should require no chemical lights or markers of right and left limits. Troops engage only bunkers, fixed targets, or pop-up targets. They never shoot beyond the confines of the objective as briefed by their chain-of-command. Chemical lights are used as range limits to mark bunkers only if the level of unit training with NODs requires them. Although O-Cs can double-check the spot where the company fires hit, the responsibility for safe firing belongs to the company chain-of-command.

To be effective, the support by fire must train the basics. The volume and rate of fire are critical. As weapons malfunction, leaders redistribute rounds to maintain fires. Squad leaders use their PAQ-4Cs to correct the aim of gunners if they deviate from the targets. Leaders can also fire tracer rounds to direct fires as a back-up means, but they control their people instead of focusing on firing their own weapons.

By the time they direct the fires of the crew-served weapons and the SBF position as a whole, the assault element has probably moved through the breach onto the objective. To shift fires, the SBF must then react to clear signals. Since ground signals near the objective are often obscured by smoke, a shifting or lifting signal is a star cluster or a

parachute flare with backup on FM communications. As the SBF element sees the signal and shifts fires, it can fire a star cluster to confirm the shift. In short, NCOs who control their soldiers' crew drill and combat marksmanship are crucial to the success of the SBF position. An SBF element can develop only through extensive live-fire training; fire control cannot be replicated any other way.

The Breach. The breach site should offer easy access to the trench line and maximum protection to the attackers. At night, the breach leader can mark this site with a GCP before any troops approach it. The breach element will suppress, obscure, secure, and reduce the obstacle. It will provide local security as the attached engineer squad moves forward with grappling hooks, creating a lane through any mines, wire, and booby-traps. Again, the site must be selected so the breach element's fires are within the approved range fan and so the company SBF can continue to suppress the objective during the breach.

The breach element needs to use as many smoke pots and grenades as possible to conceal its efforts. Although this same smoke can create a problem with the SBF element's fields of fire, training sharpens the element's reaction to contact and effectiveness. Lane marking procedures vary from one unit to another, but a lane can be marked up to the bangalore torpedo site. A unit can cut wire manually, but a bangalore is the preferred method for breaching. After the bangalore has exploded, the engineer squad returns from cover to completely mark the lane through the wire. The lane is marked with directional chemical lights or Phoenix beacons. The breach element secures the lane so the assault element can begin its mission.

Bangalores limit the construction of the range. Engineer field manuals, Army Regulation 385-63, *Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat*, and post range regulations vary on safe distances. Since the bangalore is designed to blow a lane, it is safer to be

straight behind it than to its sides. The OIC must coordinate with his post range control officer to create the exact surface danger zone. The bangalore blast could cause the OIC to place the SBF, breach, or assault element in dug-in protection. He or the range safety officer must construct the breach site in order to allow local security to fire and the bangalore surface danger zone to reduce the risk to ground forces. A shallow pit will minimize the impact of the blast.

The full bangalore kit can be broken down into smaller section charges to allow numerous iterations with less of an explosion. Two sections will cut a triple-strand concertina fence and provide the necessary training effect for the engineer. When bangalores cannot be used on the range, the engineers can use a demolition effect simulator with a quarter-pound charge of C4. With a demolition pit, C4 explosives can be used on almost any range.

Assault on the Objective. The assault element should move through the wire right after the breach element secures the breach, throwing out more smoke grenades to provide continued concealment. As the lead assault squad pushes through the lane in the wire, the squad conducts individual movement techniques by team, directing fires at Bunker #1. When the squad reaches the bunker, it executes the *knock out a bunker* battle drill and then begins clearing the trench line.

An ideal range allows the SBF element to continue firing at the objective when the breach element is emplacing the bangalore. This continuous fire requires 15 degrees between the closest target and the breach site. Once the bangalore explodes, the SBF shifts from Bunker #1 to the remaining targets. The SBF and assault elements must maintain continuous suppression of all bunkers and targets on the objective. As the SBF element shifts from bunkers, the assault element must continue suppressing them as it clears the trench.

The design of the bunker system is crucial. The bunkers should be located within the range fan so the lead squad can fire as it moves forward. The ob-

jective can be a conventional trench line or above-ground targets such as sheds, mock-ups, or tents. If a trench, it should be oriented by azimuth within the range fan to allow continuous fires by the assault element as it clears. V-shapes oriented within the range fan keep high fires within the appropriate fan. Selectively emplaced concertina wire can force maneuver squads to stay within the range fan when using above-ground targets.

The lead assault element in the trench can use a "Moses Stick"—a rod with a flag or chemical light or Phoenix beacon, depending on the time of attack—to signal forces outside a trench so the SBF can see where it is advancing. In combat, the squad leaders can "creep" fires forward of the stick to maintain the necessary safety margin, especially if the bunkers are more than 15 degrees apart. The trench teams using PVS-7Bs quickly clear enemy troops in the trench line.

Live grenades add realism to the range. A soldier prepares the grenade under NCO supervision and then throws it into an approved bunker. Grenades require flak vests. Even if no grenades are used, flak vests improve soldier safety in the trench and should be worn if the risk assessment warrants it.

Clearing to the Limit of Advance. As the troops finish clearing the trench line, they exit the trench and use a bangalore to breach out of the objective's surrounding mines and wire. They con-

solidate captured weapons from the trench line and can blow them with a bangalore or in a separate charge if the tactical situation requires their destruction.

The commander moves elements beyond the wire to clear to the limit of advance (LOA). Pop-up or single E-silhouette targets can be placed out for the soldiers to engage in the counterattack when they are moving to the wire or clearing to the LOA. Squad leaders continue to gather reports on the status of ammunition, casualties, and equipment and pass them up to higher leaders, while leaders report and disseminate information gathered from the objective. Old stuffed BDUs can be placed on the objective to replicate enemy bodies containing intelligence for search teams, and rubber weapons spread throughout the objective for collection.

Observer-controllers designate casualties during the attack, and these casualties are evacuated to casualty collection points. Once the breach is complete, the breach element is ideal for evacuating casualties. The soldiers can use sleds or poleless litters to evacuate wounded by ground to an established pickup zone. This training can be improved with a UH60 medical evacuation landing to remove notional casualties. If aviation assets are not available, a front-line ambulance can be used to back-haul wounded.

Once firing on the range is complete,

other creative ideas can augment training. As the company tactically withdraws from the objective, its chain-of-command clears weapons. The company moves to a turn-in point and conducts its own brass and ammunition checks. The O-Cs begin platoon AARs after live iterations. A final company after-action report for each live day and night iteration will bring out still more learning points.

The effort in building the range is negated if the AAR plan is neglected. An AAR site should be built into the plan, including a well-lit tent for late-night AARs. The deliberate night attack will challenge a company and develop a better sense of employing infantry weapons in combat. Training Circular 7-9, *Infantry Live-Fire Training*, contains excellent principles and techniques for range training. The difficult task is to mass the resources—including terrain, time, and ammunition—to conduct an effective range. The effort expended in training the attack will yield great dividends in the soldiers' confidence and the unit's combat readiness.

Major Craig J. Currey served as S-3, 1st Battalion, 325th Infantry, commanded a company in the 9th Infantry Division, and led a platoon in the 2d Battalion, 75th Ranger Regiment. He is now a senior military analyst with the Defense Intelligence Agency. He is a 1982 graduate of the United States Military Academy.

Actions on Contact At the Company Team Level

MAJOR FRANKLIN MORENO

Actions on contact should be at the very heart of tactical training in combat infantry units. These are some of the most critical actions our soldiers will execute in future conflicts, and soldiers will do in combat exactly what they

have learned in training.

When leaders at company and platoon level are asked which items they think are most important to rehearse and understand before a mission, the most likely answer is "actions on the objec-

tive and actions on contact." During both defensive and movement to contact operations, actions on contact actually represent the initiation of "actions on the objective." When conducting a deliberate attack, intelligence will deter-

mine whether a unit will have a true objective and conduct a real deliberate attack or treat the mission as a move-ment to contact.

Observations at the National Training Center (NTC) have revealed deficiencies in platoon and company level action-on-contact drills for both light and mechanized infantry units. My experience as a company team combat trainer at the NTC shows that most unit leaders are unaware of the various forms of contact they may encounter there: direct fire, indirect fire, air attack, obstacles, observation, electronic warfare, and nuclear, biological, and chemical (NBC) weapons effects. These forms of contact are generic enough that they can be used by maneuver units ranging in type and capability from light infantry to heavy armor and can form the basis of what many call platoon battle drills.

Simply by using doctrine-based and tactically sound procedures, a unit can easily apply the forms of contact as a foundation for building a series of platoon and company battle drills. A company playbook might contain seven sections, each detailing reactions or options to a form of contact. A sample index for such a playbook is shown in the accompanying box. Sketches for the way a unit might diagram a given reaction to contact can be drawn from several doctrinal manuals, but one of the most helpful for mechanized forces is ARTEP 17-237-10 MTP, *Mission Training Plan for the Tank Platoon*.

Once a battlebook or playbook is established, a commander can provide subordinates with focus for training exercises. For example, he can specify that platoons practice reactions to direct fire with emphasis on support-by-fire and dismounted assault during a specific field training exercise. When involved in sustained operations, he can provide mission focus by directing platoon-level rehearsals on a specific set of battle drills that may support his company mission.

It is only through training that a unit can effectively prepare to conduct actions on contact. This must be a drill that has been practiced many times. Like the play calls of a football team,

ACTIONS ON CONTACT	
DIRECT FIRE	INDIRECT FIRE
Support by Fire	Survivability Move (Box, etc.)
-Mounted	Button Up
-Dismounted	Remount Infantry
Attack by Fire	Activate CFZs
Assault	
- Mounted	
- Dismounted	
Defend	
Break Contact	
Raid	
Ambush	
Develop Contact	
OBSTACLES	AIR
Identify	Passive Stationary
Classify	Active—Rotary
Seek Bypass	Active—Fixed Wing
Breach—Manual	Survivability Move (Same as Artillery)
Breach—MICLIC	NUCLEAR, BIOLOGICAL, CHEMICAL
Breach—Tank Plow	Mask
Proof Lanes	Button Up
Assault Breach	Overpressure (Tanks)
OBSERVATION	Hasty Decontamination
Employ Smoke	Identify Chemical Agents
Report	React to Nuclear Threat
Use Terrain	ELECTRONIC WARFARE
Identify Intervisibility Lines	Send MIJI Report
React to Enemy Smoke	Observe Operational Security
Emplace OPs	Use Secure Communications
Cross Intervisibility Lines	Use Visual Signals
- Mounted	Employ a Runner
- Dismounted	Hot Loop/Lay Wire

actions on contact are a matter of instinctive execution. A unit may know what to do on contact but will need practice to execute it flawlessly.

The development of battle drills or a playbook is never easy for company leaders, but a good place to start is with an understanding of the purpose of reactions to each type of contact. An infantry company's bread and butter is its ability to react under direct fire. The purpose of this series of battle drills is ultimately to set the conditions for the assault or, in the defense, to complete the destruction of the enemy.

Let's analyze an offensive reaction to direct-fire contact. Assuming we do not have perfect knowledge of the enemy disposition, we must make certain assumptions in our company-level intelligence preparation of the battlefield process—such as: Where am I most likely to make contact under each of the forms of contact? Where is the decisive point? And How must I array my forces so I can achieve the desired effect of massing my combat power at that point? These are not easy questions to answer, but they do serve as a starting point. As in most cases in the offense, the enemy will probably see and engage us first.

As well-trained, aggressive soldiers, our first instinct is to attack. Without an assessment of the situation, however, attacking can be just mass suicide. Charging into the enemy's engagement area or "kill sack" is a common phenomenon at the NTC. What is most often used is a corruption of the "action drill" as outlined in the tank platoon manual. A Bradley team will "action" or turn toward the enemy attempting to close the gap and, in the process of trying to cover some two kilometers, its entire number is destroyed. Analysis shows that no fire and maneuver or development of the situation was used. A critical flaw here is in thinking that a Bradley has as much protection as a tank. This will never be the case. Success demands a shrewder approach.

The ultimate goal of this type of situation is to place overwhelming suppressive firepower on the enemy forces as quickly as possible, but company leaders must first assess the situation. The key here is to identify the enemy, determine his strength, and decide where to suppress and assault. To do this, elements of the company may have to back up and seek cover while maintaining suppressive fire with others. During this process, all available forces

must be firing either on the enemy or in his general direction.

Although this is a time-sensitive process during which momentum may be lost, good planning and well-drilled actions will save valuable time. For mechanized forces, this may consist of dismounting infantrymen to assist in the identification process. For light forces, it may consist of probing patrols to identify the enemy's positions and a weak point in his defense.

Once the enemy has been identified and his strength roughly assessed, the commander determines where the point of penetration is and whether he will be able to assault. He will also establish his criteria for the assault. During both World Wars, German commanders selected a point of main effort (*Schwerpunkt*) where the bulk of their forces were deployed to force a decision. (A German maxim is that "a commander without a *Schwerpunkt* is like a man without character.") Once the decisive point has been determined, the commander must orchestrate the suppressive fire effort involving the bulk of the company.

Artillery and mortars are frequently overlooked. A company commander can rapidly multiply his volume of suppressive fire by placing massed mortar or artillery fires on or near expected enemy positions. When coordinated effectively, indirect fire support can buy leaders the time they need to make situational assessments and maneuver direct fire forces into a positional advantage.

Suppressive fire should be detailed to provide most of the volume of fire on the point at which we hope to penetrate. Other enemy elements away from the point of penetration should be fixed by indirect or direct fire as necessary. Sheer volume of fire at the point of penetration will give us the edge we need to conduct the assault, because the volume of suppressive fire is often more important than its accuracy. Although near misses have no effect on the MILES battlefield, in actual combat they have both physically and psychologically destructive effects on the enemy. When planning the support-by-

fire, commanders must ensure that each platoon knows how long it will be expected to suppress and with which weapons. To use a light infantry example, the sustained rate of fire for the M60 machinegun is 100 rounds per minute. If a commander places only two guns in the support-by-fire position, gives them basic loads, and allows them to fire simultaneously at the sustained rates, he will have only nine minutes. This will also lead a commander to determine logistical requirements for given missions, and this detailed planning is vital to success.

Once he achieves suppression of the enemy forces in contact, the commander will commit a maneuver force to complete their destruction. But a clear criterion for commitment of the assault must be spelled out during planning. For example, a commander may require the suppression or destruction of all vehicle-mounted weapon systems on the objective. Implied here is the ability to identify targets and to gain positional advantage in order to place suppressive fires upon those enemy forces. If this criterion is not established or not met, the assault will be little more than a gamble and is probably doomed to failure as enemy forces not identified and targeted can bring fire to bear on the unsuspecting assault force in the engagement area. A small assault force can easily destroy the enemy at the point of penetration if it has closely coordinated fires from the support-by-fire element.

Actions on contact are inextricably tied to actions at a support-by-fire position, where most battles are won or lost. If you can achieve overwhelming fire superiority in a deliberate manner, victory is certain. As Field Marshal Erwin Rommel said, "I have found again and again that in encounter actions, the day goes to the side that is the first to plaster its opponent with fire." Observations at the NTC show this to be true. It is misguided aggressiveness that steers the Blue Forces wrong. Units that aggressively engage enemy forces on contact before maneuvering toward them usually succeed as suppressive fire allows commanders freedom of maneuver.

Observations also show that reactions to indirect fires, aircraft fires, obstacles, and NBC are all better trained than units' reactions to direct fire. This may be because these are described in more detail in such doctrinal manuals as FMs 17-15, *Tank Platoon*; 7-10, *The Infantry Rifle Company*; and 7-7J, *The Mechanized Infantry Platoon and Squad* (Bradley). Although each of these forms of contact has a prescribed battle drill, commanders should develop more than one option, because any battle drill should be integrated with a reaction to enemy direct fire. For example, when the enemy uses indirect fire, it is usually coupled with direct fire or an expected reaction to any given form of contact.

Two additional forms of contact that occur routinely at the NTC are electronic warfare and observation. When fighting a sophisticated enemy, reaction to various types of electronic warfare measures requires quick and decisive reaction for continued command and control. Regardless of enemy sophistication, we will usually be under enemy observation, and this type of contact is always the first, which leads to other, more lethal forms. Variations of this form of contact may include such reactions as the use of screening or obscuring smoke.

With forethought, doctrinal study, and adherence to tactical principles, company commanders of both light and mechanized infantry units can develop a blueprint for future combat success. With firepower, aggressiveness, and training on our side, we will have the ingredients for victory. And when properly applied, our actions on contact will set the stage for the first victory of our next combat action.

Major Franklin Moreno served as senior battle staff analyst for the light infantry task force trainers at the NTC and as an observer-controller with light, mechanized, armor, and cavalry task forces and squadrons. He previously served in the 7th Infantry Division, the 1st Battalion, 75th Rangers, and, during the Gulf War, in the 24th Infantry Division. He is a 1984 ROTC graduate of Washington University and is presently Assistant Professor of Military Science at Princeton University.

INFANTRY CAREER NOTES



THE CHANGING FACE OF OFFICER TRAINING

The Infantry Officer Advanced Course (IOAC) is changing. This change is being driven by the normal incorporation of lessons learned as well as advances in doctrine and tactics. In addition, the U.S. Army Training and Doctrine Command's (TRADOC's) Captain Professional Military Education (CPT-PME), currently in Phase III, is beginning to affect the way we do business.

CPT-PME is a plan to use advances in technology (automation, distance learning, and computer-based instruction) to shorten the total amount of classroom time while efficiently covering the material a student needs. The future will provide shorter and more focused branch-specific training, integrate more common core tasks (CCTs), and a link with the Combined Arms and Services Staff School (CAS3).

CPT-PME actually began in late 1994. At the request of TRADOC, the Command and General Staff College (CGSC) began looking at ways to make the education of captains more efficient. Using a 1990-91 CGSC study and the subsequent work of the 1993-94 TRADOC Reengineering Study's Process Action Team, CGSC developed a concept for merging the officer advanced course (OAC) and the CAS3 to a 20-week course that would be preceded by a non-resident phase.

TRADOC and the branch proponents used this study as the basis for their own CPT-PME study in 1995-96. The desired outcome of the study was a revised educational system for captains that would do the following:

- Better synchronize training with assignments.
- Eliminate disruption to units.
- Eliminate the CAS3 backlog while

retaining the essence of the present system.

The result of this effort was a recommendation for a four-phased approach to modifying CPT-PME into a single Captains Career Course:

Phase I was the old system of a 20-week OAC and a nine-week CAS3. In the past, an officer would have one or two operational assignments after graduating from OAC before attending CAS3.

Phase II linked the advanced course with CAS3. On 1 October 1996, the nine-week CAS3 was shortened to six weeks. Officers graduating from an OAC after October 1996 no longer had a correspondence course requirement. Beginning in April 1997, OAC students began attending CAS3 immediately following graduation. To eliminate the backlog of CAS3 requirements, Fort Leavenworth increased the number of classes from five to seven annually and also the number of students in each class.

Phase III, which begins transition in Fiscal Year (FY) 1998, will culminate in a course in which CAS3 and branch-specific training are academically linked into a single Captains Career Course. IOAC is now integrating 45 CCTs into the existing program of instruction (POI). Next year, the branch-specific portion will be reduced to 18 weeks in preparation for linking CAS3 in the future.

What this means for the student is that there will be a greater requirement for self-paced learning, along with more demonstrated proficiency in the planning and orders process, both in the classroom and in simulations. Students can expect to read, write, brief, and produce more in support of their classroom activities. IOAC is planning to add some diagnostic testing to facilitate personal assessment and self-paced

study outside the normal course of instruction. This phase is scheduled for gradual implementation through Fiscal Year 2002.

Phase IV, contingent on approval from the Department of the Army and TRADOC, will begin the consolidated Captains Career Course. During this phase, a captain will go to one branch proponent center or satellite location on a permanent change of station. Using advanced technology, TRADOC will create a branch mix of students by using information technology. Captains from multiple sites will engage in active learning with the assistance of satellite technology and Total Army Training System Courseware instruction. CAS3 will be an integral part of the instruction at the proponent school, conducted by satellite from Fort Leavenworth, eliminating the need for an additional temporary duty assignment. The desired result is a branch mix environment facilitated by information-age technology. Captains from multiple sites will engage in active learning, led by a staff group leader. The cornerstone of this phase is the distance-learning technology.

Meanwhile, the Infantry Officer Advanced Course will remain a 20-week course focused on warfighting and the critical skills an officer needs to be a company or team commander and a staff officer at battalion and brigade, with emphasis on the S-3 function.

Students must demonstrate proficiency in every area of instruction—through tests, briefings, writing requirements, simulations, role-playing, and planning. Throughout FY 1998, we will be preparing for the implementation of the 18-week POI. Students can expect to receive information on how to prepare for the course before attending. There will be some diagnostic testing and some non-instructor contact learning. The specifics of this process and

some of the instruction methods are still being developed. The mission of IOAC will not change with the new POI.

The Combined Arms Center has a website that provides greater detail. Anyone interested in reading the CPT-PME Action Plan and the corresponding annexes may access the website at: <http://www.dcst.monroe.army.mil/ftp/pubs/cptpme/index.html>.

More information is available from the Combined Arms and Tactics Directorate at the Infantry School; the Tactics Division representative is MAJ Ted Williams, DSN 835-5636 or (706) 545-5636.

CAS3 STAFF GROUP LEADERS

Infantry lieutenant colonels and branch-qualified majors weigh a number of alternatives when considering their next assignments. One option they may not be fully aware of is duty as a Combined Arms and Services Staff School (CAS3) staff group leader (SGL).

If you are an infantrymen in either the Active Army or the Reserve Components, you may want to talk to your assignment officer at Infantry Branch, PERSCOM, and also call CAS3 at Fort Leavenworth (DSN 552-2602/2113) to speak with a serving SGL. When one comes on the line, ask him how he likes what he does. Chances are that he will tell you he has the second best lieutenant colonel's job in the Army.

CAS3 is one of the five schools that make up the U.S. Army Command and General Staff College (USACGSC) at Fort Leavenworth. The six-week resident course (primarily Active Component) and the Reserve Component course both have the same objective—to take bright, talented captains and make them even better. Supporting this objective is a four-part goal: Improve students' ability to analyze and solve military problems, communicate, and coordinate while also adding to their understanding of the way the Army operates. It is a course that emphasizes "how to think," not "what to think."

To accomplish this, CAS3 relies on

three major ingredients. The first is a well-designed program of instruction based upon learning by doing. After an introduction to a problem-solving methodology and basic staff techniques, students progress through a demanding series of individual and group exercises in the areas of training management, mobilization and deployment, and tactical decision making. There are no grades, quizzes, or exams, and no honor graduates. Each student receives frank, detailed assessments and feedback from the SGL on virtually everything he does.

The students themselves are the second major ingredient. The course organizes them into 12-person staff groups made up of a deliberate balance of combat, combat support, and combat service support branches. The students' abilities, knowledge, and experience vary widely, but with few exceptions they are motivated, hardworking, and enthusiastic young professionals.

The POI and the students are constants. The variable is the third element in the formula, the SGL. It is up to this experienced lieutenant colonel—"two levels up" from the captains—to take the POI and the students and create captains who are skilled, confident team players. The SGL serves as instructor, facilitator, mentor, coach, and surrogate battalion commander to the staff group. These challenging responsibilities make a CAS3 SGL assignment a great opportunity for personal and professional self-development and satisfaction.

In addition to providing a stimulating environment for intellectually curious field grade officers, the role of SGL also requires the mastery of the wide body of doctrine and tactics, techniques, and procedures that CAS3 encompasses. The SGL can't fake it with the students; he has no recourse but to go back and hit the books. Those who have gone from SGL assignments into battalion command maintain that the tour was an ideal pre-command course.

Along with professional reflection and study, one of the SGL's best opportunities for self-development comes from his interaction with the students. An SGL gets to hone his understanding

INFANTRY ENLISTED BRANCH DIRECTORY

POSITION	NAME	DSN 221-XXXX (703) 325-XXXX EXTENSION	E-MAIL USERID
Branch Chief	LTC Richard Waterhouse	5585	WATERHOR
Branch SGM	SGM Russell Dillard	2742	DILLARDR
11B Team leader	MSG Michael Wilson	4783	WILSONM
11B PDNCO	MSG David Schultz	5564	SCHULTZD
11C/11H/11M Team Leader	Ms. Sherry Brown	5582	BROWNS
11C/H PDNCO	SFC Marshall Miller	7766	MILLERM2
11M PDNCO	MSG Terry Boddie	7847	BODDIET
DS Manager	MSG Divina Lafond	8070	LAFONDD
Schools Manager	Mrs. Rosie Garner	7853	GARNERR
Ranger Managers	MSG Jaime Eligio	7676	ELIGIOJ
	SFC Douglas Pallister	7676	PALLISTD
	Mr. John Sewell	7676	SEWELLJ

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BRANCH ADDRESS:

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2461 Eisenhower Ave.
Alexandria, VA 22331-0452

of leadership through the implementation of CAS3's intensive leadership assessment and development program. Equally valuable are the things he learns simply by listening as the captains discuss the field Army from their perspective.

Most field grade officers, of course, seek reward in the satisfaction that comes from doing an important, meaningful job, and what could be more rewarding and important than growing the Army's future leaders? Being a CAS3 SGL offers an unparalleled opportunity to make a difference. Better still, SGLs receive authority and autonomy in accomplishing this task, commensurate with their rank, experience, and responsibilities.

First of all, CAS3 offers an SGL a forum for sharing all the experience he has stored up during 15 to 25 years' service. The captains are vitally interested in their chosen profession and will soak up what respected senior officers say about it. Another gratifying aspect of the SGL's job is watching his students develop in skill and confidence over a six-week period. Additionally, the challenge of leading and keeping up

with them intellectually and physically keeps him young. Finally, there is the satisfaction of hearing from students after they leave CAS3, whether it is to ask for advice, seek a letter of recommendation, or just keep in touch.

For a field grade infantry officer seeking to develop himself for future positions of responsibility, while also enjoying the rewards of preparing his successors, being a CAS3 SGL can truly be the second best lieutenant colonel's job in the Army. *(Submitted by LTC Alan Cate, who served as a staff leader in the Combined Arms and Services Staff School, and who now commands the 1st Battalion, 61st Infantry, at Fort Jackson, South Carolina.)*

RANGER OFFICERS NEEDED

The 75th Ranger Regiment is seeking top-quality, highly motivated, Ranger-qualified infantry officers (lieutenant to major) for service in the regiment.

The 75th hires qualified officers throughout the year for positions within the regimental headquarters at Fort

Benning and the 1st, 2d, and 3d Ranger Battalions located, respectively, at Hunter Army Airfield, Georgia; Fort Lewis, Washington; and Fort Benning, Georgia.

Any officer who is interested should send a letter of intent to the regimental commander stating why he wants to be a part of the regiment, including his availability date, and home and work telephone numbers. In addition, he must send the following:

- Officer Record Brief.
- DA photo.
- Current Army Physical Fitness Test scorecard.
- Copy of DA Form 4187 requesting assignment to the Ranger Regiment.
- Letters of recommendation.
- Copies of all academic evaluation reports (AERs) and officer evaluation reports (OERs).

The packet must be sent to Commander, 75th Ranger Regiment, ATTN: AORG-SA, Fort Benning, GA 31905-5843, to arrive no later than eight months before tour completion. The regiment point of contact is CPT Gil-land at DSN 835-5124 or commercial (706) 545-5124.

SWAP SHOP



MAINTENANCE IS TRAINING

During a command inspection, a company or battalion often scores well in the maintenance of large inventory items such as vehicles but poorly in small-equipment areas because the equipment has not been properly maintained.

There is an easy solution for the regular maintenance of items such as weapons, communication equipment, chemical defense equipment (CDE) and nuclear biological chemical (NBC) equipment and the building that houses it.

The answer is to put maintenance on the unit's weekly training schedule, where time allows additional maintenance tasks to be done. A good example is to assign the maintenance tasks of a weak or often-neglected area a specific morning, afternoon, or whole day or week of the month:

First Tuesday—All weapons cleaned, preventive maintenance checks and services (PMCS) performed, and records updated.

Second Tuesday—All CDE/NBC equipment cleaned, PMCS performed, and records updated.

Third Tuesday—All communication equipment cleaned, PMCS performed, equipment tested, and records updated.

Third Tuesday—All communication equipment cleaned,

PMCS performed, equipment tested, and records updated.

Fourth Tuesday—All buildings and outdoor areas maintained or repaired to standards, work orders submitted, and records updated.

The maintenance of the selected areas can take place with a unit maintenance day or week. Companies or battalions can use the time periods within the already designated maintenance days to accomplish work in the smaller but still mission essential areas.

At company level, the needed maintenance can be performed after normal vehicle maintenance is done. Usually, a unit gets very good at vehicle maintenance and performs all tasks before the day is over. The rest of the day need not be wasted; the afternoon can be used to complete maintenance on a problem area. Extra effort now will prevent the need for "late night" maintenance before a command inspection or a walk-through by your commander.

Each soldier performing maintenance should be supervised by his first-line supervisor. The training time is invaluable. When your unit is called to perform its mission, all areas will be ready for the most critical inspection of all—the test of combat.

(Submitted by Captain Jeff Peters, 82d Airborne Division, Fort Bragg, North Carolina.)

BOOK REVIEWS



MIA Rescue: LRRPs in Cambodia. By Gregg P.J. Jorgenson. Originally published by Paladin Press. Ivy Books, 1995. 247 Pages. \$5.99, Softbound. Reviewed by Michael F. Dilley, Davidsonville, Maryland.

In May 1970, U.S. forces in Vietnam launched a 61-day "raid" into Cambodia as a continuation of fighting in enemy base areas along the border. The intent of this cross-border raid was to put the enemy on notice that he was not safe, even in a neutral country, and to eventually force Hanoi into meaningful peace negotiations.

Near the end of the incursion, on 17 June 1970, Team 5-2 of company H, 75th Rangers, was on a long-range reconnaissance patrol in Mondol Kiri Province, Cambodia. After radioing his night position, the patrol leader moved the Ranger team, unwittingly leading them into an ambush. This book is the story of the ambush, its aftermath, and efforts by Troop A, 1st Squadron, 9th Cavalry, 1st Cavalry Division, to find and rescue the trapped Rangers.

Author Jorgenson, although a participant in the rescue mission, has written this book in the third person, which allows him more freedom to describe the actions of those involved, before, during, and after. Although he begins the book with the ambush, he fills in the background of the various soldiers involved—Rangers, pilots, Apache Blues, various commanders, and so on. He also explains the reasons for the Cambodian incursion as well as the reason it was doomed from the start to less success than it might have enjoyed—an end-date was fixed, allowing the enemy to lie low for a given period and just outwait the American forces.

This is an interesting, exciting story of war at the basic level—the individual soldier. Jorgenson conducted extensive interviews for this book and is able to tell us what the individual soldiers said, thought, heard, and felt and how they reacted. His style is clear and to the point. The reader follows the various soldiers through preparation, the chopper ride in, insertion, and actions on station. We share their hopes and fears, their elation and disappointment. In the end, we have a good understanding of

what builds unit cohesion and how it works in combat.

Jorgenson had another reason for telling this story. During the rescue operation, one of his squad members performed a particularly heroic act, but somehow the award recommendation was lost in channels and the soldier never received the award. When Jorgenson learned of this in the mid-1980s, he and other survivors from the operation who had witnessed the bravery began a campaign to correct the Army's oversight. On 17 October 1992, First Sergeant Francis A. Cortez was awarded the Silver Star for his valor in Cambodia in June 1970. Jorgenson intended this book to recognize Cortez for his gallantry in action and also to serve as a "collective award" for everyone else on the mission. He has achieved more than his stated goal in this book. I highly recommend it for all soldiers.

British Counterinsurgency in the Post-Imperial Era. By Thomas R. Mockaitis. Manchester University Press, 1995. 165 Pages. Reviewed by Lieutenant Colonel Harold E. Raugh, Jr., U.S. Army.

The British Army has participated in many "small wars," and as a result has developed a degree of proficiency in counterinsurgency operations that is arguably lacking in the U.S. Army, most notably during the Vietnam conflict.

Author Thomas R. Mockaitis, Assistant Professor of History at DePaul University, Chicago, first wrote about the uniquely British approach to internal war in *British Counterinsurgency, 1919-1960*. This current volume continues that study by chronicling and dissecting four "post-imperial" campaigns—the Indonesian "confrontation," South Arabia (Aden/Yemen), the Dhofar campaign in Oman, and Northern Ireland—which have taken place (or are still in progress) since 1960.

The first chapter describes the evolution of British defense policy and strategy after World War II. The economic decline, domestic concerns, and rising nationalism of those years made Britain realize its far-flung empire in Africa and Asia was no longer

tenable. The British had considerable experience—both successful and unsuccessful—in "imperial policing," but in this later period they had to refine their methods and expand their traditional "hearts-and-minds" campaign.

In each of the book's four case studies, the campaign is narrated and British tactics and techniques described and assessed. The "confrontation" was a hybrid conflict, combining counterinsurgency with conventional military operations, and in Oman, British officers planned and conducted a British-style campaign. Both of these campaigns were successful. In South Arabia and Northern Ireland, the insurgency took place in both urban and rural environments. The former campaign was "an unequivocal defeat," while the latter has continued with increasing ferocity since the introduction of regular troops into the fray in 1969. Other factors affecting the outcome of a counterinsurgency campaign include the availability of high technology and weapons, and the intensity of media coverage and its effect on public opinion.

In each of the book's four campaign studies, the British took the sound principles developed during their colonial wars and adapted them to the changing circumstances of the post-colonial era. Three broad policy principles—use of minimum force, civil-military cooperation, and tactical flexibility—highlight British counterinsurgency campaigns. This interesting and thought-provoking study of a timely topic is well worth reading.

Nelson A. Miles and the Twilight of the Frontier Army. By Robert Wooster. University of Nebraska Press, 1993. 391 Pages. \$18.00. Reviewed by Lieutenant Richard D. Starnes, U.S. Army Reserve.

In October 1861, Nelson Appleton Miles was appointed first lieutenant of the Twenty-second Massachusetts Infantry. Forty-two years later, he retired as the commanding general of the United States Army. Miles's career spanned what was arguably the greatest period of change in the history of both the United States and the U.S. Army. Rob-

ert Wooster's well-researched and well-written biography illuminates both the man and the times in which he lived.

Miles was born to a wealthy family in rural Massachusetts. Leaving home at 19, he moved to Boston and worked as a store clerk until 1861. Swept up by the war fervor, he borrowed money from relatives to organize and outfit a volunteer infantry company. Much to his disappointment, another man was given command of the company. Despite this early setback, this young officer was soon appointed aide-de-camp to Brigadier General O.O. Howard and within a year had assumed command of a regiment at the age of 23.

Often cited for his personal valor, Miles proved to be an excellent troop commander. He rose steadily through the ranks, ultimately serving as a division commander in the Army of the Potomac. After Appomattox, he was reduced to colonel and assumed command of Fort Monroe, where he was entrusted with the security of ex-Confederate president Jefferson Davis. In 1867 he was given command of a regiment of black troops, which was soon transferred to North Carolina to serve as occupation troops during Reconstruction. Miles later served as an agent of the Freedmen's Bureau but left the South in 1869 for Kansas, where another war was raging.

In an age when promotions were often linked to political connections, the blindly ambitious Miles was always concerned with cultivating relationships with powerful senior officers and elected officials. These connections allowed him to parlay battlefield victories into rapid promotions, something many officers could never accomplish. As a regimental commander on the western frontier, Miles fought bravely against the Sioux and Cheyenne, and captured two important Indian chiefs—Chief Joseph of the Nez Perce and Geronimo of the Apaches. He was rewarded with several important departmental commands and ultimately rose to the rank of lieutenant general. In his final post as commanding general of the United States Army, he helped plan U.S. military operations in Cuba during the Spanish-American War.

Although Miles had been a strong advocate of military modernization early in his career, by the 1890s he no longer seemed concerned with preparing the Army to fight future battles. He refused to consider the development of a general staff system or the establishment of a war college. In the last years of his career, his political connections disappeared. He fell from favor by criticiz-

ing Theodore Roosevelt's military policies and often clashed with Secretary of War Elihu Root over the administration of the Army. This once celebrated hero was forcibly retired in 1903.

Wooster's book is more than a biography of this important military leader. By placing Miles in proper context, Wooster gives readers excellent insight into western expansion, the internal strife of the post-Civil War Army, and events of the 19th century as seen by professional soldiers. Unbiased, indeed often critical of Miles, this admirable book will interest students of the Indian Wars, 19th century America, and American military thought.

Casualties and Consensus: The Historical Role of Casualties in Domestic Support for U.S. Military Operations. By Eric V. Larson. Rand, 1996. 130 Pages. \$15.00, Softbound. Reviewed by Colonel George G. Eddy, U.S. Army, Retired.

In updating previous research on the role of casualties in domestic support for military operations, this study underscores that one of the key findings is the central role of leadership in determining domestic support. This would seem so obvious as to obviate the need for a new study. It also would appear to be clear that the number and trend of casualties in a military operation definitely influence public opinion to the extent that domestic support begins to erode if there is a basis for questioning the necessity of the engagement, especially if there is significant disagreement at the top levels of government and between the leadership of the political parties. Moreover, it would appear evident that the public's aversion to casualties is not new. And this is what the study confirms.

The author informs us that *detailed data, including public opinion and additional quantitative and qualitative data on political, military, and media activity were collected and analyzed for six different wars and military actions in which U.S. ground troops were employed: the Second World War; the Korean, Vietnam, and Gulf wars; Panama; and Somalia.* Further, he says that *the current effort involved the analysis of over a thousand public-opinion questions on military operations.* Again, one must ask why it took such an expenditure of time and effort to discover that the sun continues to rise in the east.

There was universal support for World War II because most Americans believed that our involvement was clearly vital to our

security interests, that once the war began there was considerable consensus by our leadership at the top levels, and that we should fight on to win despite the casualties. Support for Korea declined significantly after the Chinese entered the conflict and the war began to drag on without apparent satisfactory conclusions in sight as the casualties mounted. These two situations, though quite different in all particulars, seem obvious relative to the reasons for the type and degree of domestic support.

Then came Vietnam, where there evolved considerable disagreement among top leaders as to why we were there and what was to be accomplished, and as the conflict continued with escalating casualties without a valid resolution in view, the media began to publicize mass antiwar demonstrations to such an extent the President Lyndon Johnson decided to quit. The public began first to question and then finally to disbelieve what the administration and military leaders were putting out about "progress" and "success." Increasingly, the public began to despise the military for continuing to put Americans in harm's way without trying to win.

The Gulf War engendered considerable domestic support. The objective appeared valid and the extent of consensus by top civilian and military leaders was readily perceived. The public also appeared willing to accept thousands of U.S. casualties that fortunately did not occur, and the fighting's short duration precluded any substantial public disenchantment or unease, as was the case with the Panama operation. Not so with Somalia, for public discontent and criticism developed quickly as the public began to sense, as the objective for our presence became increasingly shrouded in confusion, that we did not know what we were doing.

Did we need a new study to reach these conclusions? Hardly.

The First: A Brief History of the 1st Infantry Division, World War II. Cantigny First Division Foundation, 1996. (For sale by the First Division Museum, 1 South 151 Winfield Road, Wheaton, IL 60187-6097.) 102 Pages. \$8.00, Softbound. Reviewed by Lieutenant Colonel Albert N. Garland, U.S. Army, Retired.

The U.S. 1st Infantry Division is the oldest division in the Army and possesses a distinguished combat record. In particular, in World War II, it may have had the most distinguished record of any of our divisions. The division counted 443 days of combat

(89 in North Africa, 36 in Sicily, and 318 in northwest Europe) and suffered 21,023 battle casualties. Sixteen of its members were awarded the Medal of Honor (nine posthumously), while another 161 were awarded Distinguished Service Crosses.

At the end of the war in Europe, on 7 May 1945, the division was in Czechoslovakia. Many of its soldiers were eager to return home. At the same time, the division, which was to remain on occupation duty, began to receive numerous replacements.

The then-division commander, Major General Clift Andrus, directed that a small booklet be prepared that briefly outlined the division's role and its achievements during the war. He directed that each departing and arriving soldier receive a copy. The departing soldier would have something to show the folks back home what his unit had accomplished. The replacement's copy would serve to alert him to the division's outstanding wartime record and, hopefully, instill in him a sense of pride in having been part of the "Big Red One."

The original booklet has long been out of print. At the urging of retired Major General Albert H. Smith, Jr., a long-service 1st Division soldier, the division's museum decided to reprint the booklet as part of the division's commemoration of the 50th anniversary of the end of the war in Europe. General Smith went further: He prevailed on the museum staff to add to the original booklet a brief introduction and four addenda—including such things as the Medal of Honor citations and certain statistical information. The museum also added a four-color map, tipped-in at the back of the booklet, that traces the division's march to victory from Africa to Czechoslovakia.

General (and Mrs.) Smith and the museum staff are to be congratulated on a job well done.

Shrouds of Glory—From Atlanta to Nashville: The Last Great Campaign of the Civil War. By Winston Groom. Simon and Schuster, 1995. 320 Pages. \$14.00. Reviewed by Major Don Rightmyer, U.S. Air Force, Retired.

While General Ulysses Grant engaged Robert E. Lee's Army of Northern Virginia in the East from mid-1864 until the surrender at Appomattox in April 1865, General W.T. Sherman pursued the Confederate Army of Tennessee on his campaign for Atlanta and headed into Georgia's interior on the "march to the sea." This book's subject is the campaign for Atlanta launched

from Chattanooga in 1864. Instead of following Sherman's eastward advance after that city's capture, however, the author turns the story to follow the Army of Tennessee's northwestward march to battles at Franklin and Nashville, Tennessee.

The author of this book, Winston Groom, is well known for his best-selling novel *Forrest Gump*. This is his first venture into Civil War military history.

The reader finds that this book covers a longer time period than the subtitle promises. The author actually goes back to the Army of Tennessee's first major battle in the western theater at Shiloh to bring the story up to Sherman's drive against Atlanta. His major interest throughout the book seems to be Confederate General John Bell Hood, who by the time of the Atlanta campaign had suffered a wasted arm and lost a leg from wounds at Gettysburg and Chickamauga.

Following Joseph E. Johnston's continued retreat toward Atlanta under Sherman's pressure, Hood replaced Johnston and fruitlessly attempted to save the city. Instead of following Sherman's march to Savannah, however, Hood determined to head north into Tennessee and possibly even Kentucky.

Although the campaigns to Franklin and Nashville make interesting reading, this book overall is not well-done military history. Groom's description of the battle at Franklin is certainly a poignant account, as Hood orders his army to make a desperate frontal assault against massive entrenchments. The resulting casualties rank among the highest of the entire war.

Although a little disjointed in several places, *Shrouds of Glory* is enjoyable reading in most parts. The author's six-page note on sources at the book's end provides a valuable guide to personal accounts and worthwhile military histories of this campaign. That essay is a good start for any reader who wants to discover more about the latter half of the western campaign of the war.

G.I.: The American Soldier in World War II. By Lee Kennett. University of Oklahoma Press, 1997. 265 Pages. \$16.95. Reviewed by Ralph W. Widener, Jr., Dallas, Texas.

The author, a professor of history, emeritus, at the University of Georgia, states in the preface to the paperback edition that this book is an outgrowth of a preceding book—titled *For the Duration: A General Account of the Six Hectic Months After Pearl Harbor*

(Scribner's, 1987)—in which one chapter was devoted to the creation of the G.I. Army.

He calls this book "the story of a collective experience," saying that "it recounts an episode in the lives of several million American men whom fate—and its agent, the Selective Service System—called forth to fight in the greatest war in modern times."

Using military archives, contemporary newspaper and magazine accounts, memoirs, military letters home, interviews, and other material, Kennett provides the best account found in any book of what the Army was like for the new draftee—from the time he received his "Greetings" letter to the time he was inducted into the Army, trained for possible combat service, served overseas, saw combat, and was discharged at the end of the war.

In Chapter 1, the author prepares the reader for the "draftee's" military experience by relating the trauma surrounding the passage of the first military conscription act in the United States in peacetime. Known officially as the Selective Training and Service Act of 1940, it was signed into law, by President Franklin D. Roosevelt, on 16 September 1940. But because the Congress didn't want to provoke mothers by taking young men who were still legally minors, the act limited the term of service to one year and authorized the Army to take a maximum of 900,000 men from the age group 21 to 35.

There was additional concern on the part of the Government over the way the nation's young men would take to the new military obligation. A Gallup poll of Americans between 16 and 24 years of age made it possible to gauge their feelings. For example, boys and young men were asked if they objected personally to a year of military service, and 76 percent said they did not. Many added, "If I'm likely to fight, I'd rather know how."

Because of the poll, everything went smoothly for the most part when the first nationwide registration took place on 16 October 1940. By that evening, Selective Service had the names and addresses of 16 million men. I was one of them.

Kennett's book focuses more on the draftee than on the regular soldier, and more on the Army than on any other service, probably because this is where most of the draftees ended up. The Navy, Marine Corps, and Coast Guard preferred to recruit and were able to supply all of their manpower needs by that means through the end of 1942.

In the final chapter, the author recounts his experiences at the 40th reunion of the Railsplitters—the 84th Infantry Division—at Springfield, Illinois. He wrote: *I had come to the Railsplitters' reunion because I believed that what I saw and heard there would help me flesh out the story of the G.I. in the forty years since he returned from the war. The 84th proved to be a good choice. It was a "draftee division," one of those made up of Selective Service inductees from the outset.*

I got the feeling, reading this chapter, that the author wondered whether the "Railsplitters" worried about the country to which they were returning at the end of the war as much as some of the soldiers mentioned in this chapter said would be the case, and as much as the "experts" on the home front suggested.

But there was no real problem for them or for any other returning G.I.s. Coming home was easy for them, for in their hearts and minds they had never left. Staying in the Army was out of the question for the vast majority of them, and the foreign cultures they had encountered along the way were no match for the freedoms they had at home.

Whatever problems they may have thought were waiting for them were dispelled by the genuine welcome they received. And there would be no economic depression just because wartime factories were closing down. Few cars, refrigerators, and other durable goods had been produced during the war, and the returning G.I.s, as well as those at home, would need those goods for some time to come.

If the returning G.I. needed help, his government had a number of programs waiting for him to take advantage of: educational benefits, low-interest loans, medical care, and the "52-20 Club" (\$20 a week unemployment benefits for 52 weeks).

Anyone who has ever served during a period of war, whether drafted or not, will derive great pleasure from this book. And I believe that any age group today, including those in our colleges and secondary schools, will find it engrossing. I base this conclusion on the many such audiences I have spoken to about World War II during the past few years. I believe the exposure during the week-long television broadcasts preceding the 50th Anniversary of D-Day provided a positive interest in it that continues to this day.

Telltale Heart: The Origins and Impact of the Vietnam Antiwar Movement. By Adam Garfinkle. St. Martin's Press,

1995. 370 Pages. \$24.95. Reviewed by Dr. Joe P. Dunn, Converse College.

As I witnessed recently at a conference on the Vietnam War, the issue of the antiwar movement is as emotional today as it was during the war; and the old shibboleths and canards continue to dominate the debate. Both the former activists and those who hold them in contempt agree on the same myth—that the antiwar movement had a large effect on the outcome of the war. The activists claim that they brought the war to an end, and their adversaries assert that the activists were instrumental in stealing defeat from victory.

After a long list of exhaustive hagiographies on the antiwar movement, including those by Gitlin, Zaroulis and Sullivan, Wells, Anderson, Small, Halstead, Heine-man, DeBenedetti and Chatfield, and many others, finally someone got the story right. Adam Garfinkle was not a supporter of the war, but he excoriates the shallowness of analysis by and about much of the so-called antiwar movement.

He makes three basic arguments:

- Instead of stopping the war, the antiwar movement prolonged it; but it was not a decisive factor in the war's outcome.

- The radicalism of the 1960s was not caused by the war but by the "generic difficulties of coping with the revolutionary social life of post-World War II America."

- The impact of the antiwar movement was not just in the past, because a remnant of the movement ensconced in academia and other places continues today to affect the way we view both history and present events. Obviously, each of these arguments is far more complex than it appears in brief synopsis, and Garfinkle develops each one, including several subtexts, in detail.

In all-too-brief summation of the author's basic premise, the U.S. lost in Vietnam because we employed sterile, inadequate, unimaginative military policy by civilian and military leaders; the U.S. wasn't outfought, it was outthought. In capsule, more brainpower was needed rather than more firepower. The antiwar movement contributed to Hanoi's morale but not to its victory. Garfinkle notes that the focus on the stereotype radicals is far too narrow. As other scholars also have pointed out, the so-called antiwar movement included liberals, conservatives, establishment figures, hardline civilian and military policymakers, intellectuals, hippies, and hardhats. The radicals attracted much attention and were lightning rods of anger then and now. But they had minimal impact on the war. They did, how-

ever, have deleterious effects upon standards in American culture and upon rational political discourse, and that legacy continues today.

RECENT AND RECOMMENDED

Getting the Message Through: A Branch History of the U.S. Army Signal Corps. By Rebecca Robbins Raines. U.S. Army Center of Military History, 1996. (GPO S/N 008-029-00306-6.) 464 Pages. \$34.00, Hardcover.

Guns of the Elite: Special Forces Firearms, 1940 to the Present. By George Markham. Arms & Armour Press (distributed by Sterling Publishing), 1996. 176 Pages. \$22.95, Softbound.

The Mighty Eighth in Art. By Roger A. Freeman. Sterling Publishing, 1996. 160 Pages. \$39.95.

Marine: A Guided Tour of a Marine Expeditionary Unit. By Tom Clancy. Berkley, 1996. 336 Pages. \$16.00, Softbound.

Colder than Hell: A Marine Rifle Company at Chosin Reservoir. By Joseph R. Owen. Naval Institute Press, 1996. 272 Pages. \$29.95.

The Gulf War and Mental Health: A Comprehensive Guide. Edited by James A. Martin, Linette R. Sparacino, and Gregory Belenky. Praeger, 1996. 232 Pages. \$55.00.

Fighting Proliferation: New Concerns for the Nineties. Edited by Henry Sokolski. Air University Press, 1996. (For sale by Superintendent of Documents, Government Printing Office, Washington D.C. 20402.) 377 Pages.

Psychological Operations: Principles and Case Studies. Edited by Frank L. Goldstein. Air University Press, 1996. (For sale by Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.) 364 Pages.

Bennett and the Pathfinders. By John Maynard. Sterling Publishing, 1996. 249 Pages. \$24.95.

Alien Wars: The Soviet Union's Aggressions Against the World, 1919 to 1989. By Gen. Oleg Sarin and Col. Lev Dvoretzky. Presidio, 1996. 272 Pages. \$24.95.

Managing "Command and Control" in the Persian Gulf War. By Mark D. Mandeles, Thomas C. Hone, and Sanford S. Terry. Praeger, 1996. 192 Pages. \$55.00.

War in the Air: True Accounts of the 20th Century's Most Dramatic Air Battles—by the Men Who Fought Them. By Stephen Coonts. Pocket Books, 1996. 331 Pages. \$24.00, Hardcover.

Samurai Warfare. By Dr. Stephen Turnbull. Arms & Armour (distributed by Sterling Publishing), 1996. 160 Pages. \$29.95.

Easy Target: The Long, Strange Trip of a Scout Pilot in Vietnam. By Tom Smith. Presidio, 1996. 288 Pages. \$24.95.

American Army Doctrine for the Post-Cold War. By John L. Romjue. U.S. Army Training and Doctrine Command (Fort Monroe, VA 23651-500), 1996. 159 Pages.

Belonging to the Army: Camp Followers and Community during the American Revolution. By Holly A. Mayer. University of South Carolina Press, 1996. 307 Pages. \$39.95. Coast Guard Helicopters.

INFANTRY SCHOOL DIRECTORY

The following directory is offered as an aid to people in the field who may have questions they want to ask the various departments and divisions of the Infantry School. All telephone numbers are DSN (Defense Switched Network). To call the Fort Benning numbers on commercial lines, dial area code 706; then convert 835 prefixes to 545 and 784 prefixes to 544.

In addition to these points of contact, the Infantry

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Tactics Division	835-5726
Military History Division	835-5610
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Electronics and Special Developments Division	835-4952
Firepower Division	835-1016
Concepts Analysis Integration Division	835-5413
Small Arms Division	835-1910
Test and Evaluation Division	835-2416
Mounted Systems Division	835-1644
Directorate of Operations and Training Director, COL Brian M. Pentecost	835-5717
Aviation Division	835-4680
INFANTRY Magazine	835-2350
National Infantry Museum	835-2958
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Resource Management Division	835-4087
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Training Development Division	835-5298
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Battle Command Division	835-7008
Dismounted Forces Division	835-3082
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United States Marine Corps Representative	835-5989

School maintains a hotline specifically to receive questions and comments from the field. The number is DSN 835-7693; commercial (706) 545-7693. Questions are recorded, and answers are returned within 48 hours. Lengthy questions or comments should be sent in writing to Commandant, USAIS, ATTN: ATSH-OTE, Fort Benning, GA 31905-5593.

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1st Battalion, 50th Infantry	784-0006
2d Battalion, 19th Infantry	784-8381
2d Battalion, 54th Infantry	784-9121
2d Battalion, 58th Infantry	784-9368
30th AG Battalion (Reception)	784-9902
Ranger Training Brigade Commander, COL Dorian T. Anderson	784-6911
4th Ranger Training Battalion (Benning Phase)	784-6211
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6th Ranger Training Battalion (Florida Phase)	872-1162
29th Infantry Regiment Commander, COL Richard J. Rowe, Jr.	784-6411
Maintenance Management Division	784-6517
1st Battalion, 29th Infantry Regiment	835-8667
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Co B	784-7582
Co C (BIFV Company)	784-7476
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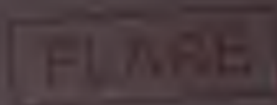
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